ABSTRACT OF

A Clinical Lecture

ON

TWO CASES OF WOUND OF THE RECTUM.

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GENTLEMEN,—Injuries or wounds of this part of the alimentary canal can hardly be said to be common; in fact, a great part of our experience of the subject has been gained from the results of surgical operations. From these we learn that very serious wounds, made with a definite purpose, heal well and often promptly. You must have all seen examples of this in the operations for hæmorrhoids or extirpation of malignant growths often done in the hospital. The rectum, however, sometimes suffers unintentional injury in the course of operations on other parts; the commonest example of this in old days was met with in the perineal forms of lithotomy and the liability to this accident was one of the strongest objections to the median form of operation. Such an accident was by no means always a serious fault on the part of the operator, but it sometimes led to immediate bad results and often to the development of a recto-urethral fistula, a very troublesome condition to deal with. The modern tendency towards the high or suprapubic operation has made this accident a rare one and accidental wounds of the rectum are now most frequently met with in the removal of growths or inflamed organs from the female pelvis. Such wounds often heal well if promptly sutured, especially if no other serious injury has been done and if it is possible to shut the sutured wound completely off from the peritoneal cavity, but it must be borne in mind that if the wound be in the non-peritoneum clad part of the bowel union is slow compared with what one sees in the case of the rest of the intestine. In some cases, moreover, it is necessary to fix the wounded bowel to the abdominal opening and to establish an artificial anus, and if the loss of substance has been at all a large one and the greater part of the fæces escapes by this, it is often extremely difficult to close the opening by subsequent operation. I have briefly referred to cases of this class to show that given favourable conditions a wound of the rectum, though a serious matter, is by no means one of the most dangerous abdominal injuries; but I must now turn to the class of case of which I have two illustrative examples to relate.

Accidental wounds may affect the rectum alone or may be complications of other injuries. By far the greater number of those falling into the first category are due to the accidental, or unskilful, passage of foreign bodies into the lumen of the bowel, and the two cases which I have to relate are both of this nature. Into the second category would come wounds of the rectum complicating fractures of the pelvis; these are rare and as usually accompanied by very severe comminution of the bones they often form only a minor element in a fatal accident. The gravity of the complication is, moreover, somewhat increased by the fact that no definite symptoms may point to it in the earliest stages of the case, so that it may readily be overlooked. In this respect particularly it is to be regarded as a more serious matter than a similar injury to the urethra. The rectum alone or together with other organs may be perforated in a gunshot wound of the pelvis. As very rare occurrences I may mention that the rectum has been known to rupture spontaneously in the passage of hard fæcal masses and also to give way above a stricture as a result of prior ulceration. The latter event, however, is more often followed by the formation of a local abscess than by widespread trouble. Cases are also on record in which the bowel from long standing prolapse had formed a hernial pouch in which a portion of the small intestine habitually lodged. As the result of strain such a pouch has been known to rupture and allow the extrusion of the contained intestine, an accident occasionally happening to ordinary external herniæ. A case of this nature was put on record by Dr. Needham in the Philosophical Transactions for 1846, the patient recovering.

CASE 1.—A girl, aged nine years, was admitted into the Evelina Hospital for Sick Children with the following history. The mother said that on the Sunday the little girl ran downstairs to open the street door and that she was then attacked with sudden pain in the lower part of the abdomen. She was sick and her bowels were confined. She was put to bed and on the following day an enema was ordered to be given by the medical man in attendance. This was done with small result, and meanwhile the child continued to get worse, complaining of very severe pain in the abdomen, which began to swell, while the sickness continued and she could neither eat nor sleep. When admitted into the hospital on the Wednesday the condition was as follows. The child lay upon her back with her knees drawn up, the face was drawn, the eyes were sunken and were surrounded by dark areolæ, she was drowsy, and wandered. The temperature was 102° F., the skin was moist and clammy, the pulse was 140 and small and weak, and she had passed no urine since admission. The lips were dry, the tongue was furred and brown, she was frequently sick, bringing up brown, offensive matter, and the bowels had been confined since Saturday, as the enema of Monday had practically no result. The abdomen was much distended, there was evidence of free fluid in both flanks and in the hypogastric region; elsewhere it was tympanitic. A diagnosis of septic peritonitis was made and it was considered that an abdominal section offered the only chance of saving her life; after consultation with her friends this was therefore proceeded with. The abdomen was opened in the middle line below the umbilicus, and a large quantity of foul, fæcal-smelling pus was at once evacuated; this escaped freely, and there were no evident adhesions. As the patient's general condition was very bad it was considered wiser not to make any further exploration, so a large drain was inserted and the abdomen was closed. After the patient had been removed to bed a free discharge continued into the dressings, but the general condition improved little and the next day she gradually sank and died 14 hours after the operation and four days after the administration of the enema. A post-mortem examination was made on the next day when the following condition was found. A quantity of fæcal-smelling pus still remained in the deeper recesses of the abdominal and pelvic cavities and the greatly distended intestines were reddened and injected throughout. On examining the pelvis a rent an inch in length was discovered in the anterior wall of the rectum four and a half inches from the anus. No evidence of any further mischief existed. It was clear, therefore, that the child had died as the result of a rupture of the wall of the rectum; the edges of the rent offered no evidence of ulceration, but there was a little area of ecchymosis around the opening such as would be likely to occur with a wound inflicted with a blunt instrument. On questioning the friends no information was to be obtained as to the administration of the enema having been followed by pain, and it was said that the fluid soap and water returned in much the same condition as it was injected, with little fæcal matter and no blood. Nevertheless there seemed little doubt that the rectum had been injured on that occasion, and that the injury had set up the septic peritonitis which led to the child's death.

In commenting on this case time will not allow me to refer to the septic peritonitis, which, moreover, was of the ordinary type common after a perforation of the bowel either as the result of disease or injury, but there are a few points as to the injury to the rectum itself to which I must allude. First, it will be noted that the injury was in the anterior wall of the gut, consequently the result was a peritoneal infection commencing to show itself from the very moment of the injury. This, however, is not always the case. The enema tube or bougie may escape at the lateral or posterior aspects of the bowel and then the fluid or fæces are forced into the cellular tissue of the pelvis, inducing cellulitis of a very severe type, which may spread up the posterior abdominal and pelvic walls and cause death by septicæmia and suppuration, or lead to most serious after-trouble by narrowing of the bowel during, and as the result of, cica risation. It is difficult to say which form of injury is the more dangerous, and judging from the case before us I should almost prefer to have an intra peritoneal rent to deal with provided it came under treatment a few hours after the injury, because I think the initial dangers are not greater, while if the case

is successfully treated primarily no serious after-consequences are likely. The extra-peritoneal rent, on the other hand, is necessarily followed by cellulitis and the formation of cicatricial tissue and we know that the contraction of such tissue after pelvic cellulitis is the most fruitful cause of the so-called simple stricture of the rectum.

As to the treatment of such an injury, if intra-peritoneal an abdominal incision would always be necessary, but if the wound was within reach of the anus I think that it might generally be better to sew it up from the interior of the bowel, as was done in the case which I shall shortly relate, which, though of an apparently equally serious nature, progressed most satisfactorily. The abdominal wound would then be merely used for the cleansing of the peritoneal cavity, but as bearing on my last remark I ought to point out that in the case of an enema having been administered we have to remember that a far greater area of the peritoneum has been fouled as a result of the injection of the fluid.

Before leaving this case it will perhaps be useful if I mention the dangers which belong to such injuries. They are, (1) peritonitis, of which the case is an example; (2) cellulitis, giving rise to septicæmia or later stricture; (3) pyæmia from septic thrombosis of the hæmorrhoidal veins; and (4) hæmorrhage, either primary or secondary. I need hardly say that the chief lesson which the case teaches us is the necessity for care and gentleness in the passage of rectal tubes and bougies, especially if there is any reason to suspect ulceration or inflammatory softening.

The second case is an example of a similar wound, the result of more purely accidental circumstances.

CASE 2.—A girl, aged eight years, at 3 P.M. on August 1st, 1898, in trying to spring over a broken chair failed and impaled herself on a sharp, jagged portion of the uprights of the chair back. She was alone at the time and she appears to have gone at once to bed, where she was found an hour later in great pain, bleeding from a wound in the perineum from which some intestine was seen to protrude. She was taken at once to a medical man who washed the parts with carbolic lotion, replaced the bowel, and sent the friends with her to the hospital. On admission the child was noticed to be very pale and apparently suffering much pain, and as soon as she arrived she was violently sick. On examination several coils of small intestine were seen protruding from between the patient's legs and passing on to the front of the abdomen. These appeared to protrude from a rupture of the perineum, which extended from the vagina to the anus and connected the two openings into one. The intestine was again washed with carbolic lotion, reduced through the rectal wound, and retained by a pad. At 10 P.M. an anæsthetic was administered and a thorough examination was made. On separation of the lips of the wound it was found that the rupture of the perineum, although extending its whole length, only passed to the depth of the external sphincter ani; above this and for some two and a half inches the rectum was intact, but full of small intestine which entered the bowel by a rent in the anterior wall quite three inches from the anal opening. The prolapsed gut had, in fact, on each previous occasion been merely returned into the rectum itself. The intestine, which had now been in this position for some seven hours was already clothed with a thin layer of patchy yellow lymph but was otherwise unhurt; it was cleansed as efficiently as possible by washing with 1 in 1000 mercuric chloride, and returned through the rectal wound into the abdomen. Sutures were then inserted through the whole thickness of the wall of the bowel, tied on the mucous aspect, and the rent was closed. Meanwhile Mr. E. O. Thurston, at my request, proceeded to open the abdomen from above; the coils of intestine which had protruded and were readily distinguished by their appearance were thoroughly cleansed again, the pelvic cavity was flushed with sterilised water, sponged out with 1 in 2000 mercuric lotion, and the wound was closed, a large rubber drain being left in the lower angle leading into the pelvis. The laceration in the perineum was closed by two deep silkworm gut sutures and several superficial ones of horsehair, just as in an ordinary operation for ruptured perineum. The operation was well borne and the child was removed to bed without any signs of collapse. On August 2nd a fair night was passed, the child sleeping a good deal. There were some general tenderness and slight distension of the abdomen; on respiration the upper part moved but the lower part did not move at all. The temperature, which fell to 96° F. after the operation, was now normal. The pulse was 120, of fair strength, and soft. No flatus or fæces had been passed. The abdominal wound was dressed, turbid blood-stained fluid was found in the gauze and some blood-stained fluid was pipetted out. In the evening the child had become restless and she complained of pain in the abdomen. During the day two-minim doses of tincture of opium had been given every six hours. The temperature was 99·4° and the pulse was 138. On the 3rd the child slept a few hours and was not so restless; she twice vomited a quantity of green fluid during the night; no fæces had been passed but some flatus was passed by the abdominal tube. There was no discharge in the dressing, but a small quantity of fluid was pipetted from the tube. The cheeks were flushed, the eyes looked a little sunken, and the expression was anxious. The temperature was normal and the pulse was 135. The distension was less but there were some rigidity and considerable tenderness and pain. About from 18 to 20 ounces of milk were taken in the 24 hours. A drachm of sulphate of magnesia was given in the morning and at 3 P.M. a soft rubber tube was passed into the rectum and half a pint of warm water injected; no fæces or flatus were, however, passed. On the 4th the child had passed a good night and her appearance had improved. She had a good colour and the eyes were less sunken. The walls of the abdomen were soft and there was only moderate distension. The tenderness was less and there was little pain. There had been no action of the bowels. The temperature was normal. The pulse was 120 and was improved in quality. In the evening two drachms of castor oil were given and during the night the bowels were well opened twice. On the 5th the child's general condition was very good, she looked happy and contented, and had little or no pain. The temperature was normal and the pulse was 102. The tongue was moist but furred. The whole abdominal wall moved with respiration and the hypochondriac regions were now depressed. The discharge from the tube was very offensive and fæcal in odour. The tube was changed, a fresh one was introduced, and the wound was gently irrigated with warm water. The wound in the perineum had been healing steadily and looked well. On the 6th the child's general condition was excellent. The temperature was normal and the pulse was 76 and of good strength and volume. The tongue was clean and moist and the bowels were opened twice during the morning; there was no control over the anus. During the next few days there was little to note except that there was some diarrhœa and that a considerable amount of fæcal matter came from the wound. The fæcal discharge ceased on the 10th. On the 11th the child's general condition was excellent. The discharge from the wound consisted of pus only and in small quantity; the tube was removed and a gauze drain was substituted. The stitches were removed from the perineum. The child was now taking milk, beef-tea, bread-and-butter, and pudding. On the 18th two stitches which had remained in the perineum were removed and the wound was nearly healed. There was very little discharge from the abdominal sinus. On the 20th the plug was discontinued. The child looked quite well and had been taking fish and mince for the last three days. She had perfect control over her motions.

This second case may be regarded as an altogether satisfactory one. Although the primary injury was apparently more severe than in the first case, yet in reality it was probably the less dangerous from the fact that although a portion of the small intestine was seriously fouled the general peritoneal cavity escaped in the earlier stages the widespread infection no doubt accompanying the escape of the enema fluid. Again, the patient came under treatment a few hours after, instead of three days after, the accident. The case in all respects corresponds with one of penetrating wound of the abdomen with fouling of the gut without the peritoneal cavity. The method of treatment has been sufficiently set forth in the notes detailed above, but I would again refer to three important points in it. First, the method of cleansing the obviously fouled portion of the bowel separately and resorting to flushing of the pelvis only after the removal of the gross source of infection in order to avoid as far as possible the chance of the therapeutic cleansing leading to wider diffusion of septic matter. The flushing was rendered necessary from the fact that it was impossible to thoroughly disinfect, or rather cleanse, the highest portion of the bowel prolapsed and the margins of the wound in the rectum itself. Secondly, the employment of drainage, which in such a case, where the suture could not

from the difficulties on its introduction be confidently relied upon as effective, I think should always be employed and was here abundantly justified. Lastly, the treatment of the flatulence and incipient signs of peritoneal septicæmia by free purgation in spite of the fact that the part primarily injured was the bowel itself. The immediate good result of this was obvious.

In view of the comparative rarity of such cases it is interesting to note that an exactly similar injury, except that the portion of bowel prolapsed was probably sigmoid flexure, was recorded by Dr. Allan.[1] The wound of the rectum in that instance was caused by a cucumber which had been pushed up the bowel in "horse-play." The patient, a young woman, succumbed to septic absorption. Both cases illustrate the common anatomy of these injuries given a normal rectum, the wound being situated in the anterior wall at the level of the lower part of the pouch of Douglas; while the second case is of anatomical interest in demonstrating, if proof be needed, that the mesentery of the small intestine is often long enough to allow of the escape of the bowel to a level far below the lowest limits of the pelvis or the abdominal cavity, since the gut not only hung from the perineum, but actually mounted on to the anterior surface of the pubes.

An Address
ON
THE USE OF MERCURY IN THE TREATMENT OF HEART DISEASE.

Delivered before the Islington Medical Society on Oct. 17th, 1899,

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GENTLEMEN,—The progress of bacteriology during recent years, with that development of Jenner's great discovery which has resulted in the preparation of preventive and diagnostic sera and of sera at times apparently curative of disease, is calculated to convey the impression that, could we but learn to combat the germs and their products which prey upon mankind we might realise the dream of those who desire to believe that a century of life should be regarded as the normal term of human existence. The late Dr. Spencer Cobbold once humorously remarked that as the tapeworm came to maturity in man it might be seriously argued that the real destiny of man, in a scheme of impartial nature, was to be the host of the tapeworm! The dignity of the ruling creature revolts against this idea, but he appears to have resigned himself to the belief that he is an excellent culture medium for innumerable morbific bacilli, many of which manifest no desire to allow him to reach a patriarchal age. That this belief is well founded there is only too much evidence in view of the hecatombs sacrificed by infectious disease. But such deaths, however numerous, are merely accidental, and a large proportion of mankind still succeed in wearing out or rusting out, as the case may be, and always will do so. In this large section of the race the control of the factors which are necessary to organic life by other than bacteriological processes is still a field which constantly demands the attention of the physician, and it is perhaps a wider field than that which comes under the special purview of the Jenner Institute, increasingly important as is the ground covered by its operations. It comprises all those incidents of human life which range from the influence of the emotions and exertions of man upon his existence, to those fatal consequences to his longevity which are due to irregularities and imprudences in the conduct of life.

Life manifest in an organ and throughout the organism is expressed by three factors—the organic cell, whether of secretion, muscular motion, or excretion; the blood which nourishes such; and the nerves which control it. Attention to these factors by other than bacteriological agencies is called for in the large field of which I have spoken, but the power of the physician to control organic life is less evident in the case of some organs than in that of others. This fact is sometimes referred to in a spirit of cheerful banter by the surgeon the progress of whose more mechanical art has been so marvellous of late. He laughs best, however, who laughs last and the slower progress of the more difficult branch of medicine need not depress us unduly. Progress even in the physician's sphere of activity has been made, although more slowly.

Over no section of the organism has the physician so marked a control as over the cardio-vascular system. It is fortunate that this is so, for the control of the blood-vessels is as necessary to the therapeutic domination of the body as the possession of sea-power is to the dominion of the world. We can improve the force of the heart by means which supply to it a nourishing quantity and quality of blood; by stimulating its essential muscular element; and by storing or expending the nerve energy which controls the central organ and its vascular prolongations, the arteries.

It is not my purpose, however, this evening to enter into any detailed consideration of these points but to invite your discussion of the place in the therapeutics of cardiac disease of one of the most venerable agents in the armamentarium of the physician and one which, from the error inherent in human endeavour, has experienced the usual fate of many things submitted to the notice of man—namely, over-laudation followed by the necessary reaction which results in undue depreciation. I refer to the use of mercury in the treatment of heart disease. To examine very closely the archæology of the subject would be neither desirable nor useful. It will suffice to mention the views of some who, though long dead, yet speak by much that was excellent in their labours and of others who though still alive incline to one side or the other of the plumb-line of the swaying pendulum of opinion. If we use this figure we shall find the names of Graves and Stokes, of Hope and Taylor and their contemporaries at one end of the swing of the pendulum—that of the over-laudation of the drug as we now think—and of Walshe, Bennett, Fothergill, and others at the other extreme—that of undue depreciation of the action of mercury in heart disease; while nearer the vertical line, some on this and some on that side of it, we should at the present day find a large number of practitioners who are endeavouring to steer a safe course between the Scylla of over-use and the Charybdis of a too timid employment of the drug. Among these mention may be made of Sir William Broadbent and of Dr. W. H. Dickinson, Professor Clifford Allbutt, Dr. Sansom, Dr. G. A. Gibson, and others, including Finkelstein and Landau, who occupy a somewhat peculiar position, to which I shall refer more particularly.

In the present day, when the treatment of acute inflammatory diseases of the heart by mercury has been altogether abandoned, it appears scarcely credible to us that physicians whose acumen has become an article of faith with their followers should have launched into enthusiastic encomiums upon the virtues of mercury in arresting serious inflammatory affections of the heart without sufficient justification. Thus Dr. Graves writes: "If a person is seized with very acute pericarditis how unavailing will be our best directed efforts unless they be succeeded by a speedy mercurialisation of the system. ..... When even the most violent attacks of pericarditis are met with copious venesections, repeated leeching, and the rapid injection of calomel, few patients will be lost."[1] This rapid injection of mercury meant the use of 20-grain doses of calomel once or twice daily until mercurialisation was secured.

Dr. Stokes states[2] that these heroic doses produced no "considerable amount of abdominal distress" provided the patient avoided "cold fluids, acids, or fruits," but drank "freely of warm barley-water." A long and no doubt disastrous experience taught our predecessors how to introduce into the blood a sufficient quantity of the drug without producing uncontrollable gastro-intestinal irritation. Subsequent experience has not justified a continuance of "heroism" in the employment of either bleeding or mercury, but we who are still under the influence of the swing of the pendulum to the opposite extreme and who also live in the days of bacillary infection may express a surmise that it is just possible that in some cases of acute

[1] THE LANCET, Feb. 4th, 1882, p. 182.

[1] Clinical Medicine, p. 803.
[2] Diseases of the Heart and Aorta, p. 86.

cardiac disease these strong measures may have succeeded in ridding the blood-stream of morbific organisms and thus have brought about favourable results which impressed some of our predecessors who could not be accused of being devoid of the faculty of weighing evidence. He would be a bold man, however, who in our day attempted to turn the blood-stream into an antiseptic lotion. We prefer the more innocuous, if not more successful, introduction into it of "streptococcic fluid" and an attitude of inactivity which we at times desire to consider masterly and which is at least not actively pernicious. When we leave the graver acute forms of heart disease, however, and turn to those chronic forms of cardiac dilatation so often associated with hepatic enlargement, we find that subsequent experience can endorse that of Dr. Stokes[3] when he states that "in the case of hepatic complication we observe that mercurial action produces a singularly beneficial effect," and he quotes to illustrate his point the now classical case of the famous Irish surgeon, Mr. Colles. "No relief," he states,[4] "was ever obtained until a free action of the kidneys was established; but it was found that this could only be effected by the use of mercury followed by diuretics. On several occasions the diuretic treatment not preceded by mercury was tried but it always failed, so that the number of times in which a distinct course of mercury was employed was very great;" and he adds, "to this remedy, in a great degree, must the prolongation of Mr. Colles's life be attributed, for on various occasions the symptoms had gone so far as to cause complete orthopnœa with unusual anasarca and alarming pulmonary congestion." Mr. Colles was well advanced in life and subject to attacks of gout and also, no doubt, exhibited the usual arterio-sclerotic changes associated with that condition. My own experience and that of all of us, I feel sure, corroborates that of Dr. Stokes in this variety of cardiac disease, and it is acknowledged in the so-called "Guy's pill," which consists of blue-pill, squill, and digitalis, and is so frequently of much service in cardiac dropsy. The class of case in which digitalis and its congeners are found to be useless when unassisted has been described by Dr. George Balfour[5] in the following words: "Since the days of Withering it has been known that when 'the limbs in anasarca are solid and resisting we have but little hope' from digitalis. The analogy here is with those senile hearts whose dilatation is due to loss of arterial elasticity; in both cases digitalis is of no use, and may even be hurtful, until the peripheral obstruction is removed. In the one case the peripheral obstruction is due to pressure of fluid on the arterioles and is readily removed by purgation or drainage. In the other the obstruction to the circulation caused by loss of arterial elasticity is aggravated by the digitalis action on the arterioles, and this is counteracted by the combination of a vascular stimulant with the cardiac stimulant. In both cases digitalis acts like a charm when delivered from the incubus of peripheral obstruction." Although Dr. Balfour in this passage lays emphasis on the utility of purgation in these cases he makes no specific mention of mercury. It is just under these circumstances, however, that, in the words of Stokes already quoted, "mercurial action produces a singularly beneficial effect."

Like most Edinburgh men of my time, the value of mercury as an aid in the management of circulatory disorders was little if at all appreciated by me for a long time after I graduated. This was owing to the trenchant dogmatism of the late Professor Bennett who, while a superb clinical teacher for the student, was perhaps apt to generalise too widely from his own conclusions. This very tendency, no doubt, constituted some of his power as a teacher, for the tyro does not grasp very readily a series of alternative possibilities in discussion. These force themselves upon him later if he has the power to observe and to think. My own conversion was hastened by my intercourse with Sir William (then Dr.) Broadbent, of whom I saw a good deal when in practice in this neighbourhood. He has since then published more fully his views on the value of mercury in the treatment of arterial tension. Sir William Broadbent himself likewise admits that he commenced his career when mercury was under the ban of authoritative medical opinion, and states that his own experience of the effects of mercury on blood-pressure has caused him to regard it as "one of our most important remedies."[6]

"Full doses," he further states,[7] "may be reserved for emergencies; the less serious symptoms may be met by the administration of a single grain of pilula hydrargyri with ipecacuanha and rhubarb or colocynth twice or three times a week, with which may be combined from time to time a three weeks' course of salines. To intermediate degrees of urgency may be added suitable doses and combinations." Indeed, the expert use of mercury needs as delicate a perception of circumstances and as much observation and experience as does the employment of any other drug potent for good and likewise, unskilfully employed, for evil. Many others, for example, Dr. Dickinson,[8] Dr. Sansom,[9] Professor Clifford Allbutt,[10] and Dr. G. A. Gibson of Edinburgh justly appreciate the value of small doses of mercury in reducing impedimental conditions of vascular tension; but none of the teachers of the present day, so far as I am aware, have so strongly emphasised the value of the drug in these cases as has Sir William Broadbent.

The influence of mercury in its action upon the circulation when thus employed may be said to be chiefly an indirect influence. Brisk purgation may indeed withdraw some of the watery constituents of the blood and thus act more directly in reducing the weight of the circulating fluid, but this direct action must not be over-estimated. Fluid thus withdrawn is easily and rapidly replaced. As a vaso-motor relaxant the action of mercury on the heart is altogether indirect. Impediment is removed, not the heart directly stimulated, and it is in this fact that the utility of the combination of mercurials with strychnine, arsenic, and the digitalis group lies.

There is, however, another method of the employment of mercury in cardiac dropsy to which I wish to draw attention, a method in which, while the effect upon the circulation may also be considered chiefly indirect, this effect is produced by a direct action upon the kidneys. Calomel used as a diuretic by this method has at times so powerful an effect that it might be permissible to regard the diuresis resulting as a veritable renal purgation. Finkelstein was the first of recent years[11] to call attention to this mode of producing diuresis in cardiac dropsy. The method consists in the exhibition of from one-fifth to four-fifths of a grain of calomel every two hours, presumably during the day, that is, about from one to five grains daily given in small and frequently repeated doses for a period of four or five days and in ultimately combining the calomel with small doses (from one-seventh to one-third of a grain) of the powder of digitalis leaves. He states that mercurialisation or purgation rarely resulted and readily ceased on abandoning the drug for a time, and that the diuretic effects continued for a week or 10 days after calomel had ceased to be administered. The diuretic effect usually manifested itself on the fourth or fifth day and the quantity of urine voided often amounted to seven litres or about 12 pints during 24 hours. In one respect Finkelstein's experience was the same as that of Stokes. It is stated that in some cases "calomel and digitalis were without effect when given separately, but rapidly brought about improvement when given together." The calomel usually acted better in mitral than in aortic cases and was useless when there was concurrent nephritis of non-cardiac origin. Arnold Landau[12] corroborated Finkelstein's observations and found the method especially useful in the cardiac dropsy associated with non-valvular fatty disease of the heart. It was the experience of both that after two or three courses of this character, undertaken during relapses into non-compensation and dropsy, calomel ceased to have the power of provoking the diuresis which both these authors ascribe in great measure to direct stimulation of the secretory structures of the kidney itself, during elimination of the drug by that organ.

There is, finally, yet another sphere for the employment of mercury in the treatment of heart-disease. As Dr. Sidney Phillips remarks in his able paper on "Syphilitic Disease of the Heart Wall," published in THE LANCET,[13] the treatment of such cases "is the same as of syphilis in other internal organs." It is the diagnosis of these cases rather than the principles on which they should be treated which

[3] Ibid., p. 262.
[4] Op. cit., p. 264.
[5] Clinical Lectures on Diseases of the Heart and Aorta, 1896, p. 366.
[6] The Pulse, p. 182.
[7] Loc. cit.
[8] Allbutt's System of Medicine, vol. v., p. 692.
[9] Ibid., p. 992.
[10] Ibid., p. 969.
[11] Gazette Hebdomadaire Médicale de la Russie Méridionale, 1895, Nos. 31–34; and review in Wiener Medicinische Presse, 1896, No. 44, p. 1670.
[12] Wiener Medicinische Presse, No. 29, 1897.
[13] THE LANCET, Jan. 23rd, 1897, p. 223.

presents difficulties. The functional disturbances manifested by a syphilitic heart may arise from other causes and in the absence of a clear history of congenital or acquired infection it is not easy in many cases to decide the point. Nevertheless, cases occur in which after the failure of other treatment specific remedies such as iodide of potassium and perchloride of mercury ameliorate symptoms or even appear to cure the disease. In such instances "the cure indicates the disease." The majority of such cases, as Gibson states in his comprehensive work,[14] declare themselves in the tertiary phase of syphilis and call for potassic iodide rather than for mercury; but experience teaches us that the two at times seem to accomplish more satisfactorily the object in view than either alone, and the disease is crippled more quickly and certainly by "emptying" as it were "both barrels into it," to borrow a metaphor from the hunter.

I trust these few words in praise of mercury may serve to elicit the experience of the members of the Islington Medical Society, and I desire, in conclusion, to express my sense of the honour which has been done me in permitting me to open this session of a society in connexion with which I have so many happy memories.

ABSTRACT OF

An Introductory Address

ON

MEDICAL PROGRESS.

Delivered in the Mater Misericordiæ Hospital, Dublin, on the Opening of the Thirty-eighth Session of the Institution on Oct. 23rd, 1899,

BY THOMAS MORE MADDEN, M.A.O. (HON. CAUSA) R.U.I., M.D. TEXAS MED. COLL., F.R.C.S. EDIN., &C.,

OBSTETRIC PHYSICIAN AND GYNÆCOLOGIST TO THE HOSPITAL, ETC.

GENTLEMEN,—In the establishment of the Mater Misericordiæ Hospital the Sisters of Mercy, by whom it was founded close on forty years ago and by whom it has since been maintained with little assistance beyond the inexhaustible benevolence of Irish charity, put before themselves a high ideal, the fruition of which you now see in this institution which, in an independent official report, has been aptly described as "The Queen of Dublin Hospitals." Of the work done here it may suffice to say that during the past year alone 3522 patients have been treated within the wards, 23,061 cases relieved in the extern departments, and 696 operations (not including gynæcological and eye operations) performed in the theatre of the hospital.

INFLUENCE OF BACTERIOLOGICAL DISCOVERY ON THE PROGRESS OF MEDICINE.

Turning from the work of our hospital to that of the healing art, of which it is the clinical theatre, we find here as elsewhere the most distinct imprint of recent progress in every department of practical medicine, surgery, and gynæcology, as well as in ophthalmology, dermatology, and the other special branches of modern medico-chirurgical science. The rapidity of this advance has been such that the highest professional accomplishments attainable 20 years ago have already become almost as obsolete for a student as the knowledge of Hippocrates in physic or the skill of Ambrose Paré in surgery might prove, could either be now tested by a modern Conjoint or Royal University Medical Examination. So many and complex are the factors in that revolution in medicine that it would be useless to attempt any survey, however brief, over a field of such extent. Nevertheless, I may, perhaps, be permitted a passing allusion to one point which, trite as it must be to every member of the profession, may possibly interest some of the junior members of our class as affording a master-key to many of the most signal triumphs of recent medical and surgical practice—I refer to the germ theory of disease. On that doctrine, moreover, largely rests the foundation of modern preventive medicine and sanitary science, by which the limitation of disease, the prolongation of life, and the increase of the welfare of the community have been so signally accomplished within the past few years. Nor was it until long after the actuality of the facts established in our own time by Pasteur, Lister, and Koch had been demonstrated beyond controversy that this theory became universally adopted as the basis of a new pathology and therapeutics. And only since then has the medical practitioner been furnished by the bacteriologist with an accurate knowledge of the etiology of many of the obscurest forms of disease. Thus, for instance, we now know that diphtheria, septicæmia, cholera, tuberculosis, lupus, typhoid fever, as well as countless other maladies, including the malarial fevers of equatorial regions and the bubonic plague which in former times wended its path of devastation from its remote habitat in the east even to this sea-girt western land, and with a revisitation of which we are at present apparently threatened, are one and all distinctly traceable to bacterial virus communicable in each instance by specifically infective micro-organisms. Legion, however, as is the number of our bacterial foes, a still larger proportion of microbes fulfil functions of vital importance and utility in the economy of nature. Such, for instance, are the micro-organisms by which the oxidisable and nitrogenous material of effete and decomposing organic matter is seized upon and resolved into its proximate elements. In this way, then, is restored to the universe, for the maintenance of vegetable and animal existence, that indispensable stock of chemical constituents in default of which this fair world of ours would in time inevitably become reduced to the lifeless desolation of its pale-faced satellite:—

> "See! all things with each other blending,
> Each to all its being lending,
> All on each in turn depending,
> Floating, mingling, interweaving—
> Rising, sinking, and receiving
> Each from each, while each is giving
> On to each, still upward tending,
> And everywhere diffused is Harmony unending."

RECENT GYNÆCOLOGY.

I cannot altogether refrain from alluding to the branch of medicine with which I am most intimately concerned. But however tempted I may be to dilate on the progress of modern gynæcology I shall confine within the narrowest possible limits my reference to a subject that, however interesting to myself, would probably prove wearisome to the majority of my present audience. It will therefore be enough to say here that this youngest of the tripart divisions of the healing art has exhibited a progressive development fully equal to that of either of its medico-chirurgical parent sciences, and that this specialism, the very name of which was unknown in my student days, has within the past few years advanced by leaps and bounds to its present prominence in the foreground of medical progress.

THE FUTURE OF YOUNG MEDICAL MEN.

Before bringing to a close observations which have probably already proved sufficiently prolonged I would venture, gentlemen, to offer to you, as I did to your predecessors here "twenty golden years ago," my sincere congratulations on your selection of the profession of medicine, for although since then the requirements of the examination boards have been vastly increased in extent and stringency, although our calling has become now so overcrowded in many places that the struggle of early professional life must too frequently be waged under circumstances of keenest competition and ill-remunerated toil, nevertheless medicine still retains gifts and advantages above those of any other calling. Unlike almost every other profession, medicine is cosmopolitan and wherever acquired may be practised in climes and circumstances wherein man when stricken by disease or accident must of necessity still turn, as he did in the Homeric days of old, to "a wise physician skilled his wounds to heal" for respite from suffering and from death. Not until pain be annihilated and death be swallowed up in the final victory of eternity over time need any well-qualified practitioner of medicine who is blessed with the essential attributes of rectitude of conduct, kindness of heart, sympathy of demeanour, and energy of character, ever doubt his ability to secure by the exercise of his profession in any part of the world a sufficient competency and an honourable position.

Gentlemen, on entering the medical profession you must assume many responsibilities as well as gain some privileges.

[14] Diseases of the Heart and Aorta, p. 749.

On you, therefore, it will devolve to support the reputation of your calling by a conscientious zeal in the honourable discharge of your great mission to the poor and suffering. Moreover, it will be your duty to add your mite of experience and of knowledge to that cairn of medical science which has been brought up to its present height by the aggregation of the individually minute contributions of your predecessors, and so maintaining the great traditions of Irish medicine to hand it down to your successors improved and perfected by your labours.

CELTIC MEDICINE, ITS HISTORY AND LESSONS.

In this connexion I may for a moment refer to the fact that Irish medical men can lay claim not only to the traditions they inherit from their more immediate predecessors, but also to a history deserving of larger consideration than is now commonly given to it. For, as I have elsewhere shown, the practitioners of the healing art in this country are, in truth, the legitimate heirs of the oldest professional culture of which there are in existence the records in the living language of any European nation. Let me therefore remind you that in distant ages when the lamp of medical knowledge was unkindled in most other countries its light shone with comparative brilliancy in this remote *Ultima Thule*, as may be easily proved by incontrovertible historical evidence. Thus, for instance, there are still extant and accessible in the libraries of the Royal Irish Academy and Trinity College in this city, as well as in other similar collections elsewhere, a vast body of ancient Gaelic MS. documents in many of which the distinguished history and high character of early Irish medicine are well illustrated. From these sources we find that from the oldest period of authentic history the classic literature of Greek and Roman medicine, as well as a still more ancient native leechcraft, were cultivated in our own country even in those far-off ages, whilst at the same epoch therapeutics, materia medica, and anatomy were studied, and surgery, gynæcology, and obstetrics were practised, in Ireland, where the hereditary followers of the healing art were then held in high honour. Nay, more, we have clear evidence that the marvels of modern hypnotism and the employment of anæsthetics on which we plume ourselves as the most beneficent discovery of the present age were, although in cruder forms, here anticipated by our remote predecessors.

Amongst the numerous collegiate centres of professional as well as of ecclesiastical learning with which this *Insula Sanctorum et Doctorum* was studded over between the sixth and sixteenth centuries, and the very ruins of many of which, such as Clonmacnois, Cashel, Meelick, Portumna, Lismore, and Monasterboice, still attest the culture and art as well as the piety of their founders, one at least is of special interest to us as of a distinctly medical origin—viz., *Tuaim Brecain*, near the present town of Belturbet. All the various faculties of these Celtic Catholic universities—for such was the character of many of them—were for long ages crowded with students from every part of Europe, who in some of them were subjected to a course extending over a period far more protracted than even that of the modern medical student. From these institutions also were sent forth men such as Alcuin, the founder of the University of Pisa, Johannes Scotus Erigena, who in the ninth century was regarded as the ablest writer of that age as well as the first professor of philosophy in Paris, and countless others, to diffuse the lights of learning and science as well as of faith to the ends of the earth. Nor did that long intellectual pre-eminence cease, in medicine at least, until after the destruction of the Irish monastic universities during the reigns of Henry VIII. and Elizabeth, and even down to the middle part of the seventeenth century we find the far-extending fame of Irish medicine referred to by authorities of such eminence as Van Helmont.

To the destruction of those Celtic universities may, moreover, be dated the origin of the disabilities in the matter of higher education that for three centuries have pressed, and still press heavily, on the majority of the Irish people and on none more forcibly than on those of them belonging, as so many here do, to the medical profession. The latter, during all these generations, have been thus unfairly handicapped in the race of existence by the impossibility of securing, in accordance with their conscientious convictions, that full measure of academic training within the halls of a university which is so conducive to success in the higher walks of professional life or public employment and which is accessible to their compeers of every other persuasion.

We may, however, rest well assured that in this, as in all other matters, justice, although long delayed, must, like that truth on which it is founded, eventually prevail. And therefore can we confidently anticipate that this last vestige of the dark shadows cast over our land by the successful intolerance of a bygone age may for ever be swept away in the near day-dawn of the twentieth century which we trust will usher in the final and equitable adjustment of the Irish Catholic University question. Whether in our day this long cherished hope be realised or not will, however, we are equally confident, in no wise affect your kindly relations and zealous coöperation in the mission of medicine with your brother practitioners of all other schools and denominations. Nor need we attempt to stimulate your esteem and respect for men amongst whose professional ancestors were included names such as those of Cusack, Carmichael, Graves, or Stokes, which at home and abroad are as imperishably engraved on the annals of our science as those of their Catholic compeers, Corrigan, O'Reilly, Lyons, or Hayden, or who—like the Anglican founder of Sir Patrick Dun's Hospital, or Bartholomew Moss to whom Ireland owes her great school of midwifery the Rotunda, or Dr. Richard Steevens by whom the hospital which bears his name was established—have left in our city enduring monuments of a medical benevolence as far above all sectarian considerations as that of the founders of the four Catholic hospitals which are so largely supported by Irish charity in Dublin.

In conclusion, I would only venture to express my trust that in the fulness of years you, gentlemen, may one and all leave behind you such imprints on the sands of time as those I have just named did. Thus will you not only honour yourselves and your calling, but also perchance reflect some of your well-won credit on your clinical *alma mater* and on those who were once your teachers in the Mater Misericordiæ Hospital.

REMARKS ON RENAL SURGERY.[1]

BY EDWARD DEANESLY, M.D., B.SC. LOND., F.R.C.S. ENG.,
HONORARY ASSISTANT SURGEON TO THE WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.

RENAL surgery, in spite of great improvements, still contains a number of unsettled problems with regard both to diagnosis and treatment. The following remarks attempt to discuss some of these problems from the standpoint of personal experience and reflection and are more particularly concerned with the commonest of surgical affections of the kidney—namely, calculus.

The first step of every operation on an internal organ is to verify or correct the diagnosis. In the case of the kidney even with the most improved methods of investigation the diagnosis seldom reaches more than a high degree of probability, and even in cases where the diagnosis is most certain the best treatment to adopt can only be determined after the precise conditions present have been ascertained by dissection. In other words, every operation on the kidney should be so designed as to permit a complete preliminary exploration. The first problem, therefore, which confronts us is this: What is the kind and amount of clinical evidence which justifies a surgeon in advising or urging an operative examination of the kidney? Omitting for the present abnormal conditions which may exist without altered states of the urine, such as some forms of neoplasm and hydro-nephrosis and most cases of excessive mobility, I think we shall not go far wrong if we adopt the following rule—namely, to explore in every case where persistent morbid conditions of the urine are associated with persistent signs referable to one kidney. For example, persistence of even minute quantities of blood and pus in the urine when associated with persistent or frequently recurring pain in one loin constitutes, in my opinion, a sufficient presumption of stone, tubercle, or pyelitis to justify an exploration of the kidney. I do not suggest that any other clinical evidence bearing on the case should be neglected. The object of clinical investigation should be to ascertain, first, whether any morbid condition of the urine which may be found is or is not of

[1] A paper read before the Birmingham branch of the British Medical Association on Oct. 12th, 1899.

renal origin; and, secondly, if renal, whether from one or both kidneys. In many cases the absence of signs of bladder disease, together with well-marked pain, tenderness, and enlargement of one kidney, or typical attacks of one-sided renal colic, are sufficient to constitute not an actual proof but a strong presumption that the morbid condition of the urine is of renal origin and to justify an exploratory operation. Every surgeon must, however, have met with cases where it has been extremely difficult to decide whether blood or pus in the urine proceeds from the bladder or kidney. In such cases hæmaturia may be the only sign discoverable. It is true that there are well-known clinical rules for determining the probable origin of blood in the urine, but of these some are certainly fallacious and others are not always applicable. Renal hæmorrhage, for example, is often sufficiently profuse to form clots in the bladder and to be passed as such at the end of micturition, and I have known this occur even in cases of renal calculus in which hæmaturia is not as a rule profuse. Again, when the blood is small in amount and clearly of renal origin it may not be easy to decide whether it is due to stone, tubercle, or to new growth or to one of the forms of parenchymatous or interstitial nephritis. The presence of renal tube-casts and excess of albumin over blood or the presence of well-marked signs of nephritis may, of course, leave no obscurity, but this collateral evidence may be wanting, and until nephritis can be confidently excluded no surgeon would willingly undertake an exploratory operation on the kidney. In this connexion I may mention what is not always recognised by physicians—that the cirrhotic kidney, the symptoms of which are so often quite masked or obscure, sometimes gives rise to tolerably profuse hæmaturia. In all such cases the use of the cystoscope is invaluable and except in very unfavourable conditions will determine whether the blood or the pus proceeds from one or from both ureters.

The use of the catheterisation of the ureters as a means of diagnosis is one which cannot yet be regarded as an indispensable method. That an examination of the urine obtained directly from each kidney would be of the highest possible value in every obscure case needs no demonstration. The only question is as to what extent is the difficulty and danger of the proceeding justified by the value of the information obtained. In women catheterisation of the ureters presents no very great difficulty, but it is not entirely devoid of the risk of infecting the kidneys. In men the procedure is admitted to be difficult even in practised hands. I have myself adopted a routine procedure which to a certain extent fulfils the same purpose as catheterisation of the ureters and has many advantages over it. This is, before operating on the kidney to which clinical evidence points as the affecting organ, to examine the opposite kidney through a small abdominal incision not more than one and a half inches long immediately below the ninth rib cartilage. With two fingers introduced into the abdomen, using the opposite hand to palpate the loin, a complete and thorough bimanual examination of the whole kidney and the upper half of the ureter is easily made. This simple procedure can be carried out in less than ten minutes, including the closure of the wound. It enables the surgeon to operate immediately on the other kidney with a full knowledge of all the conditions necessary to decide the best course to adopt. In many cases, for example, the question of nephrectomy is sure to arise, and in deciding for or against this procedure the condition of the other kidney is of all factors the most important. I have carried out this plan in several cases but in none was its value more convincingly demonstrated than in the following.

CASE 1.—A man, aged 29 years, with well-marked but compensated mitral disease, had suffered for over two years from severe pain in the right loin. In June, 1899, he had considerable hæmaturia. The right kidney was large and tender; the left could not be felt. In reply to a question he said that he had occasional pain in the left loin but less severe than on the right side. It was decided to operate on the right kidney through the loin. Before doing this I made a preliminary examination of the left kidney through a small lateral abdominal incision and at once came down on a large stone in the pelvis of the ureter. The wound was closed and the operation on the right kidney was proceeded with, as originally intended, through the loin. It was exposed and brought outside by the ordinary oblique incision, and a calculus weighing 77 grains was removed from the pelvis of the ureter together with three other small calculi from the interior of the kidney. After catheterising the ureter the wounds both in the pelvis and in the kidney cortex were sutured, the kidney was replaced and the wound was closed. A fortnight later a similar procedure was carried out on the left side, but on this side the kidney was a mere sac containing urine, the pelvis of the ureter being blocked by a tightly impacted irregular calculus weighing 150 grains. A smaller irregular calculus was also found and removed. The patency of the ureter having been demonstrated the incision on the kidney was inverted and sutured and the shrunken sac was replaced. A small artery had to be ligatured in the interior of the kidney. In both operations the wounds healed by primary union and convalescence was only interrupted by a rather severe attack of hæmaturia three days after the second operation.

In three other cases in which I have operated for stone in one kidney without previous exploration of the other kidney, symptoms of stone have subsequently appeared on the unoperated side. As the question of bilateral renal calculus is one of great practical importance I will give a brief abstract of these cases, first remarking that all three cases occurred at an earlier date than the one which I have just related and before I had realised the importance of bilateral exploration.

CASE 2.—An ex-soldier, aged 36 years, had had symptoms pointing to the right kidney for five years. In 1893 I removed a calculus weighing 40 grains by the ordinary lumbar incision. The patient was discharged in the following month in good health and he resumed work as a postman. Some months later he returned with an account of left renal colic and hæmaturia. He was relieved by medical treatment and was afterwards lost sight of.

CASE 3.—A clerk, aged 32 years, had had right renal colic and frequent hæmaturia for 14 months. A highly crystalline uric stone of the size of an almond was found in the pelvis of the right ureter and it was removed. A second small stone was removed through an incision in the cortex. The incisions in the kidney and the ureter were sutured. All the wounds healed by primary union and the patient returned to his home on the fourteenth day. Four or five months later he had for the first time an attack of pain in the left kidney accompanied with abundant hæmaturia. He is still considering whether to submit to a second operation.

CASE 4.—A girl, aged 18 years, was admitted to hospital in May, 1897, with an obviously enlarged right kidney and pus in the urine. She had also had pain in the left kidney. The right kidney was exposed in the loin and was found to be so completely disorganised and filled with large and small calculi that it was judged better to remove the kidney and its contents without opening it. The wound healed by primary union, but the patient continued to suffer from pain in the left kidney together with considerable pyrexia. This gradually abated and she returned home comparatively well, but died rather suddenly at home about 12 months later. There was no post-mortem examination.

These last three cases, together with others of which I have heard, and also numerous post-mortem examinations where quite unsuspected renal calculi have been found in both kidneys, have convinced me that bilateral calculi are more frequent than is generally recognised and they help to emphasise the value of bilateral exploration as a routine measure. The method of examination of the kidney by bimanual palpation through an abdominal incision is not, of course, a complete and exhaustive method. Calculi of considerable size may be so completely embedded in the kidney that there is great difficulty in detecting them even when the organ is brought outside the body, and grave alterations of structure in the kidney produced by tuberculous or other inflammations sufficient perilously to impair its function may be impossible to recognise by touch alone.

Negative information obtained by this method cannot therefore be absolutely conclusive of the sufficiency of one kidney to carry on alone the whole function of renal excretion. I merely contend that intra-abdominal palpation through a lateral incision (which for the purpose is incomparably superior to a median incision) enables the operator to obtain, with little difficulty and risk, positive information of great value, such as the presence or absence of stone in the pelvis and upper part of the ureter or any considerable abnormality in the size and consistence of the kidney. If we add to this information considerations derived from the greater or less disorganisation of the obviously affected kidney we have generally sufficient evidence to decide on the propriety of nephrectomy. These remarks apply to

calculus and its accompanying morbid changes. In the case of proposed nephrectomy for tuberculous disease the state of the remaining kidney is of so great importance that it is, in my opinion, wiser to thoroughly explore both kidneys in succession by sight and touch before deciding on the removal of either. In such a case an interval of time between the two operations would be expedient for obvious reasons.

It will be noticed that I advocate the small abdominal incision for exploration only and not when it is intended to open the kidney and remove a calculus. For the treatment of all conditions of the kidney except very large neoplasms the lumbar incision is by far to be preferred to the abdominal incision. Not only is it anatomically the most simple and direct, but the absence of any opening of the peritoneum both keeps the intestines out of the fold of operation and lessens the risk of infective peritonitis when the contents of the kidney are septic. In this preference for the lumbar route I believe most surgeons are now agreed. Mr. Mayo Robson has, indeed, lately advocated an extra-peritoneal operation through the flank without the division of any muscular fibres, and the late Mr. Lawson Tait, I believe, practised a similar operation. The object of this plan is, of course, to lessen the risk of hernia, but I have never yet seen or heard of a case of hernia through the ordinary lumbar incision for the kidney, which appears to me to be simpler and more direct than Mr. Mayo Robson's plan.

The earlier operators who performed nephrotomy and nephro-lithotomy contented themselves with exposing a greater or smaller portion of the kidney through an oblique lumbar incision and incising the cortex or pelvis *in situ*. The objections to this plan are, however, manifold. The kidney often lies at the bottom of a deep wound, where it is not easily accessible, and hæmorrhage from the kidney substance is sometimes troublesome and difficult to arrest. More important still, the procedure does not permit a thorough exploration of the whole kidney and it is very difficult to demonstrate the patency of the ureter, which is an essential precaution in almost every renal operation. It has several times happened that in a case presenting the usual signs of renal calculus the kidney has been explored with negative results and a subsequent operation has found the stone in the ureter.

In other cases one or more calculi have been removed from the kidney, but others have been left in the ureter and a persistent urinary fistula has resulted. For these reasons, in every case where it is possible it should, I think, be a rule to free the whole kidney from its bed and to bring it out on to the loin before it is incised and in every case before returning the kidney to demonstrate the patency of the ureter by passing a probe or catheter down it into the bladder. The advantages of this plan are very great. By packing the wound around the kidney with gauze or sponges and by the use of a trocar and tubing the possibly septic contents of the kidney can be evacuated without contaminating the wound. The whole kidney can be palpated and exposed with thoroughness and ease and hæmorrhage can be easily and satisfactorily controlled. Lastly, the upper part of the ureter can be inspected and a catheter can be passed down it with ease into the bladder. If necessary the ureter can be incised and sutured for a distance of at least two inches from the kidney. The advantages, in fact, of dealing with the kidney as an external organ need no demonstration; the only objection likely to be made is that it is not always easy and sometimes impossible. It is quite true that adhesions may be so dense in cases of old-standing perinephritic inflammation that a complete dislocation of the kidney may be difficult or impossible, but this occurs chiefly in neglected cases or in cases which have previously been submitted to simple nephrotomy, an operation which, except in the emergency of obstructive anuria, should be hardly ever performed. Again, any difficulty occasioned by great enlargement of the kidney can be overcome by preliminary aspiration after exposure of the kidney, when this is cystic, or if the enlargement is solid by prolonging the wound downwards and forwards to a sufficient extent. The most effectual means of obtaining more room, however, is to remove about two inches of the twelfth rib subperiosteally and this I have adopted in several cases with very satisfactory results.

Another question in renal surgery which is frequently discussed concerns the best position of incising the kidney for the removal of calculi. The earlier operators favoured an incision through the cortex which, although giving rise to more hæmorrhage than one through the pelvis of the ureter, was believed to heal more readily and to have less risk of leaving a fistula. Subsequent experience has shown that wounds of the pelvis heal at least as readily as the cortex and that if there is no obstruction of the ureter there is no fear of the formation of a permanent urinary fistula. As a matter of fact, the pelvis and the upper part of the ureter are extremely common positions in which calculi become lodged, and when the kidney has been brought out on to the loin it is extremely easy to cut directly on to the stone and after extracting it to close the incision with a fine continuous suture. Before doing this the opening in the ureter should be utilised both to introduce a sound into the kidney in order to detect other calculi and also to pass a fine catheter down into the bladder. If in addition to the stone removed from the ureter others are found within the kidney itself the best mode of removing these depends upon circumstances. If small, they may sometimes be removed by a scoop or forceps introduced through the ureter. In other cases it may be simpler and better to make an incision through the cortex directly over the stone. With regard to the use of sutures in the kidney surgeons differ. Some prefer to use no sutures and to drain the wound. For my own part when I have satisfied myself that both kidney and ureter have been freed from calculi I do not hesitate to close the wound in the ureter completely with a fine continuous silk suture, and the cortex, when that also has been incised, by stouter silk sutures passing deeply through the kidney substance. The lumbar wound is then also closed with sutures of strong fishing gut, including all the divided muscles, a small strand of gauze being passed down to the back of the kidney for drainage. If no escape of urine occurs this may be removed at the end of 48 hours, the whole wound healing by first intention. In all the cases, five in number, in which I have sutured the kidney and closed the wound the conditions were favourable. The patients were young and healthy and not too fat. The kidneys were not irreparably damaged and the urine was free from pus and apparently aseptic.

The extent to which it is possible or wise to carry out conservative methods necessarily varies in individual cases. Where the contents of the kidney are healthy, or at any rate not grossly septic, and when obstruction of the ureter can be shown to be absent or can be remedied either by the removal of impacted calculi or by a suitable plastic operation in cases of kinking or stricture, there is no reason why the kidney should not be preserved. This applies even to cases of advanced hydro-nephrosis when the cause of the distension can be determined and removed; unless, however, this is done it is far better to remove the sac than by simple nephrotomy to convert an inconvenient tumour into an intolerable fistula. The presence of infective inflammation and its products in the contents of the kidney greatly limit the scope of conservative measures. The presence of a small amount of pus in the urine is no bar to the suture of the ureter or cortex and closure of the lumbar wound, and if proper precautions are adopted during the operation to prevent the contamination of the wound primary union may be confidently expected. Where the amount of septic material and the associated disorganisation of the kidney are greater it is wiser not to insert sutures in the kidney owing to the danger that they may fail to become encapsuled or absorbed, and in such case drainage of the wound cannot safely be neglected. Lastly, where the stones are very numerous and the kidney greatly disorganised and full of septic matter it is wiser to remove the whole organ without previously opening it, rather than to leave the wreck of the kidney in a large contaminated wound. The advantage of a preliminary exploration of the other kidney before deciding on this course is obvious.

Wolverhampton.

MEMORIAL TO A MEDICAL MAN.—The fund for providing a memorial to the late Dr. W. Hopkin Thomas of Maesteg has just been closed. The sum realised was about £700, and it has been decided that the memorial should take the form of a fountain with commemorative tablets.

INCORPORATED SOCIETY OF MEDICAL OFFICERS OF HEALTH.—At a meeting of the West of England and South Wales Branch held at Bristol on Oct. 19th Dr. W. H. Symons, medical officer of health of the city of Bath, was elected president of the branch for the ensuing year. Dr. Howard-Jones, the retiring president, and Mr. J. C Heaven were chosen as representatives of the branch upon the council of the society. It was decided to hold the annual meeting at Bath on Nov. 23rd.

THE TYPHOID FEVER OF MALARIAL COUNTRIES: SOME REMARKS AND SUGGESTIONS ON ITS PATHOLOGY AND TREATMENT.

BY W. FORBES-LESLIE, M.B., C.M. ABERD.

IN considering the future of the white races in tropical countries—a subject which has gained interest by the rapid development of Rhodesia and Central Africa in the last decade—we must not, as so many writers contend, have regard to the high temperature of these countries as the cause which is inimical to their progress, but to another cause which is the result of these temperatures—viz., the rapid growth of cellular life and the generation of poisons and ferments which have a pathogenic action upon the human body. With a focus at the equator this pathogenic energy stretches north and south till it touches the Cape of Good Hope on one side and the shores of the Mediterranean on the other. Its gradations are but those of the vegetable world of which it forms part or it is the dim uncertain boundary between the vegetable kingdom and that other great organic kingdom which is comprised under the science of zoology. For so lowly are these organisms of disease that they reach back to the very genesis of life and we see, as in a glass darkly, our origin and the gulf which separates man from his beginnings.

It is this protoplasmic energy, then, which determines man's status in the tropics, and the great changes which take place in his cells under the exterior forces of Nature, such as alterations in the surrounding media which he breathes and works in, are such as, when combined with the changes effected by germ processes introduced into his system, completely alter the relations of the cellular particles to each other and lay the foundations of degeneration. We have only to look at the history of the Spaniards in America and that of the ancient Greeks in Asia to acknowledge that there is a law of descent as of ascent, and that this law is determined as much by man's environments as by the moral law working within him. It is uncertain, however, whether this descent is towards extinction or to a balance between man's physiological processes and those in the world around him, from which may spring the regenerating forces of the Darwinian theory; but if so we must remember that such laws do not act upwards to the biological ideal in a generation but through countless ages in the slow progress of evolution to higher forms. In considering, then, the germ processes which act inwardly towards this degeneration we come to one which is called "malaria," but which under many names repeats itself in the human economy of disease, and its consideration is of special interest at the present time in the light of new facts in its life-history exposed in the investigations of Major Ronald Ross, I.M.S., and in the military preparations in South Africa which, although not in the most fatal latitudes, is still conterminous with them and is affected in a measure by low malarious forms. This belief is exemplified by the facts which have lately been published that the troops are suffering from an epidemic of typhoid fever. In Europe enteric fever or typhoid fever is defined as an infectious disease with its focus of activity in the intestine and its channel of infection by the primæ viæ through insanitary arrangements. The germs gain entrance by the medium of water or the atmosphere to the intestines where they set up in Peyer's patches the same pathological process with the same clinical symptoms. There is very little difference in cases when they are developed, and rarely much irregularity, and it is only in those cases where the dose of the poison has been small or the phagocytic power of the blood is strong that they obtain a latency of action. Then it is difficult to say whether a patient is suffering from typhoid fever or, as some men very wisely say, from the effects of influenza. Here, then, we have a group of well-defined symptoms and a chart which no one can mistake and a rash to clinch the diagnosis. But in malarial enteric fever we are on new ground—we are dealing with a stranger who loves change, whose moods are as variable and as irregular as a woman's. One day he is like his European brother and we are satisfied they are identical, but in a little while a new case troubles us: the chart has no uniformity, the symptoms are obscure, and Liebermeister himself would be at fault in finding his stages. What is the cause of irregularity, then, in typhoid fever in tropical countries? My answer is that it is the same cause which produces modifications in other diseases in these countries—viz., malaria. There is no doubt of it; reason as you may you are always face to face with this great power in disease—this diathesis which hides or rehabilitates disease till it assumes new forms and produces new chapters in our tropical medicine.

Malaria, then, is not so much a disease as a diathesis—a proneness towards certain forces in nature giving rise to certain irregular constitutional disturbances in our cell elements by which it resists, or tenuates, or annihilates the germ invasions, or changes them into something more virulent and fatal to the body which retained them. We know that syphilis has the same power; we know that syphilis has a remarkable effect upon the cell elements; we know that it has the power of modifying other diseases and that the human body so inoculated retains its immunity through life but that at certain seasons from some mysterious cause there may be a recrudescence of the disease. In malaria, therefore, as in syphilis, there is a continuity of purpose everywhere apparent towards the modification of ordinary pathogenic expressions. These changes we find in the symptomatology and in their reactions towards the common remedies in these diseases, and also on the side of their pathology. This law of modification is more strongly expressed in the low forms of malaria than in those cases where the vigour of the poison is most apparent, so that the vital energy of the protoplasm seems to be in inverse ratio to the vigour of malarial expressions. The reason of this may be that the constitution reacts more violently towards large doses of the poison and the violence of the attack and height of the fever are brought about by the energy of its resistance to the natural regenerative forces at work in our bodies, and that, on the other hand, the dose being small, there is less irritation and consequently less reaction towards it. As it gains time it is able to derive suitable elements for its metabolism until it can in its fully developed state invade and inoculate the blood. I use the term "inoculate" because it is evident that the organism of malaria after certain changes in its metabolism in the body of its host has not the same irritant power as if it were primarily introduced into the blood as the developed organism of some other host, in which case it must act towards its new host as a foreign body. Thus it produces what I may call a diathesis and acts towards ordinary diseases as a great modifying force or even in some cases to the production of new diseases.

As the law of ascent, however, must be applicable to disease, if we believe that disease is the result of living organisms, we must be prepared to apply and to expect those sub-laws which are the fundamental basis of it. Thus there is frequently a reversion to a type of an older and more lowly origin, and we can obtain in these immune cases an atavism to the original malarial form which if so produced is usually fatal. This may arise from one of two causes—from changes in the environment of the host, such as exposure to cold or to the influence of sea air, or from the introduction into the system of some new organism which is of a lower type and consequently less open to the series of changes which it must undergo in contact with the malarial taint. Now, holding these points in view, we shall find that the low forms of malaria produce most of the immune cases and in these occur those modifications of disease which so puzzle observers. And here there is another law at work and that is the law of infection, which is in inverse ratio to the period of inoculation, being more dangerous at the beginning of the immunity than it is later. In other words, the constitution is more open to infection from other diseases during the period of change than at any other period. We may imagine that the natural elements of the blood and those organisms and ferments which are the forces at work against infection are latent or in a condition of modification by the malarial poison. Thus it is in this period that we most frequently find malarial enteric fever. And it is a common saying in both India and Africa that after the first year enteric fever is less to be feared than during that initial period. We may take it, therefore, that one year is a constant quantity in malarial immunity. In tropical countries, also, we have to take into consideration the increased protoplasmic energy of organic life, and that in the air and water and everywhere around us there are increased forces at work,

and that we ourselves are weaker in comparison, as being accustomed to the slower and less energetic causes of pathogenesis in the colder zones. We require to become accustomed to our environments, but at the same time we have to face the forces at work in the world around us. Here, then, we have a real struggle for existence between that multicellular organism, man, and the myriads of unicellular organisms which seek to destroy him. Man, however, is so created that the "laws of selection" and "the survival of the fittest" are as steadfast in him as in the lowest amœba, and these laws, made more perfect and immutable in the course of his ascent through countless ages from the same lowly organisms, subserve and bring about the changes in his cells which are necessary to his survival, but should these changes be arrested or diverted from their intention by some unknown cause or by some disobedience to the laws of physiological life, then these forces are left free liberty of action to fulfil their pathogenic destiny. Let us imagine, therefore, the organism of enteric fever entering the intestinal canal of such a host. There is nothing in the stomach or in the channel by which it has come to arrest its energy. It seeks a suitable nidus for its development. This is always the objective of the lowly unicellular organism as of the multicellular ascent; it is the law of life, from amœba to man, and from man till we reach the spiritual ideal. It is the ambition of the protoplasmic atom as of ourselves, and in accordance with this law it selects and brings us into contact with this other, which is one of its footsteps, to a more developed life. In the lower part of the ileum there are numbers of agminate glands, consisting of groups of lymph follicles. These masses are often more or less fused together. Their base lies in the sub-mucosa while their summit projects into the mucosa, where they are covered merely by the columnar epithelium of the intestines. The patches so formed, called "Peyer's patches," have their long axis to the axis of the intestine and are always placed opposite the attachment of the mesentery. It is in these follicles that the germ of typhoid fever commences its life-history in the human body. There is no irregularity in its objective—in typhoid fever, either of the ordinary form or of its modification, they are always the seat of the disease, and the mysteries of this law of selection in nature is made apparent when we consider that the solitary follicles, which are practically the same in structure, are never affected.

After a certain incubative period, in which it has to fight for its existence with organisms which would destroy it, and while at the same time it gathers up its pabulum from the substances around it, it develops its zoological characters and commences its life-history in its new home. As the inflammation extends the reaction of the body is shown by regular and unmistakeable signs and there is always a parallel between these and the pathogenic process. There is diarrhœa of a peculiar character, there is a fever chart with high level for a week and a regular fall through Liebermeister's stages, and a rash on the abdomen. There is tenderness in the right iliac fossa and the peculiar expression of enteric fever patients, but as there is a parallel between the pathogenic process and the clinical symptoms there must be with a change in one a corresponding change in the other. The constitution is like a delicate chemical combination—change some element and you get a different reaction; so here, if there is a change in the poison there is a corresponding alteration in the symptoms. Thus, if in a malarious patient the enteric fever germ has settled in one of Peyer's patches it commences its life-history in the same way, following out the laws subserving its development, but as the blood and tissues are altered in degree it must modify its action and consequently the result of that action—that is, the ptomaines or the products of its pathogenesis, call them as you may, which are absorbed into the blood and which give rise to their clinical parallels. So we reach an irregularity of symptoms which can only be understood by arguing on the law of modification. Thus we get an irregular chart, where there may be a tendency to irregularity in the high level or to a crisis without Liebermeister's stages, or the intermittency may be continued or the remittency limited in every conceivable form. There is seldom much tenderness in the iliac fossa and the skin assumes a malarial tinge. There are also indications of malarial infection in rigors and sweatings, and the diarrhœa may not be the true stools of enteric fever but are frequently the result of dysenteric inflammation as well. There is generally the history of malaria in some other form, or else it shows itself as an ague during, or more frequently at the commencement of, the illness. Also malarial enteric fever is not so fatal as is the European disease, convalescence is more rapid, and a fatal issue by perforation is rare. The gastric functions are more deranged and death is largely due to want of nourishment. It must be recognised, however, that patients newly arrived in the country, and probably undergoing profound changes in their cell elements as a result of malarial poisoning, are more open to attack and have less initial energy than others, and that in these persons the greatest care must be taken to keep them from unnecessary infection and from disobeying physiological laws. In large camps where men are crowded together in a tropical or malarious country this is difficult, but sanitation nevertheless must be here more scrupulously enforced than elsewhere and all causes which breed or foster disease must be severely dealt with. Earth-closets should be used and proper attention to the drinking-water observed. All water for this purpose should be boiled, however clear and pure it looks, for malaria may lurk in the clearest pool. I have seen this in Madagascar among the French. Meat should be fresh every day, and not too much of this eaten, for a diet largely consisting of flesh lessens the glycogen in the liver and diminishes the power of the organ to filter out the germs seeking entrance to the blood. I believe that the large consumption of animal food among English troops in the tropics is a cause of much illness. Chills should be guarded against in a military campaign as much as is possible and drinks consisting largely of alkalines and lime juice should be taken in preference to alcoholic or vinous liquors. But, above all things, care should be taken to eliminate as much as possible all source of infection and the camp should be established on high land and sheltered by trees from marshy ground or river basin.

We come now to the treatment of malarial enteric fever, and in this we shall find that to succeed we must allow as our base the theory of intestinal absorption. It is impossible to consider the clinical symptoms arising in this disease as anything else but a constitutional poisoning by ptomaines, and if so we can only argue that these ptomaines are manufactured at the focus by inflammation—i.e., the intestinal canal; but in all tropical countries we have the most fatal diseases arising in the intestine, and this we must consider in the light of a law. It is in the primæ viæ that we find the greatest number of organisms and species of organisms, and it is on this tract that the changes of temperature of the exterior media are most pronounced, as it lies nearer the surface than other parts. Now, we know that protoplasmic energy is increased by heat, and if we allow the presence of organisms we allow at the same time increased protoplasmic energy, or in other words an increased production of any given poison. If so, tropical diseases of the intestine are more generally fatal than they are in Europe. This is so when we review the statistics of cholera in India and malarial enteric fever in Africa, and the form of malarial enteritis and dysenteric forms which are so common in malarial zones. In a published paper[1] I have already treated the theory of intestinal absorption in malaria, and it is on this theory, as I have said, must be based the proper and, as I imagine, the only rational treatment of malarial enteric fever. The intestine is a tube formed for the passage of certain substances, and fitted throughout with a complicated and highly efficient means of absorption and rejection. The colony of bacteria produce septic materials either in the form of spores or ferments which, being highly absorbable, pass through the walls of the intestines into the blood-stream and set up the clinical parallels of the disease which they originate. Now, Nature is of all things preservative, and all her ideas are highly efficient to this end. She must have a means of preventing this invasion of noxious elements, for it seems that the intestine exerts no selective power but acts towards all substances as a simple membrane; it is in the liver we must look for this filter, this barrier between the primæ viæ and the vital blood. Certain eminent authorities believe that the liver has this function; and the more I study the entrance of disease into the body the more am I impressed with the correctness of their view. It seems that glycogen has an important function in this respect, for there is an intimate relation between the glycogen and the onset of disease, as the causes which

[1] Malarial Fever; Some Suggestions in its Pathology and Treatment, THE LANCET, June 4th, 1898, p. 1530.

are most fruitful in diminishing this substance are those which predispose to disease. Thus it may be that the poison gains entrance to the blood and with it in due course the spores of the disease. But after a time these are rejected and thrown out into the intestine to become formed bacteria, to develop and disperse their poison till death supervenes. It is probable, also, that most intestinal pathogenic colonies can increase in this way as well as by fission, without further introduction from the original infection, and in face of this intestinal focus of disease, with its continual increase from the blood, one can see how important is the question of intestinal absorption and the necessity for destroying the constantly renewed foci by sweeping out the primæ viæ by strong remedies. Of these there is none better than calomel, for in the early stages and when judiciously used it will cut short the disease. Calomel has two virtues—the effect of antisepticising the tract and promoting the flow of bile and of sweeping out almost naturally all offending materials. This treatment should be continued for several days till the blood is free from further infection. Then it remains to heal the ulcer left by the colonies of bacteria, and this will be best ensured by a mixture containing chlorate of potash, quinine, and hydrochloric acid which evolves chlorine gas. This has a great antiseptic effect on the intestine and it can be continued till convalescence is complete. The way in which chlorine reaches the intestine is obscure. It seems probable that it first enters the blood and from thence is thrown out into the intestine. Anyway, it has an undoubted benefit in enteric malaria and other malarial forms of enteritis. The serum treatment of disease is too much in its infancy to speak of it in detail, but it seems to hold out hopes of a definite immunity. The food of malarial typhoid fever patients differs little from what is recommended in ordinary cases. Plenty of milk and soda-water should be taken, with stimulants in moderation, and when there are signs of weakness chicken-soup or beef-tea. And above all the patient should be drawn away from contemplating his illness and the chances for or against his recovery. I have often seen cases run a fatal course from fear on the part of the sufferer who under ordinary circumstances should have recovered. In malarial fevers there is always nervous feebleness and a tendency to see the black side of things. Delirium will sometimes suddenly supervene, and the patient will go out like the flame of a candle burnt low in the socket, or linger for hours in coma without any seemingly pathological reason to account for his condition.

Banchory, Kincardineshire.

UNCONTROLLABLE VOMITING RELIEVED BY LAPAROTOMY AND MANIPULATION IN A CASE OF GASTRIC OBSTRUCTION DUE TO THE PRESSURE OF AN ANEURYSM,

WITH REMARKS.[1]

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AND
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A MARRIED woman, aged 49 years, was sent by Mr. J. Cary of Chelsea to St. George's Hospital on August 24th, 1899,[2] suspected of intestinal obstruction with constipation and persistent vomiting of one week's duration. The patient, an abstemious woman, originally strong and always healthy but for jaundice in childhood and rheumatic fever at the age of 40 years, was wasted and prostrate. Last Christmas she had a prolonged attack of vomiting and constipation, but she was not confined to bed. For a year previously she had had morning vomiting after taking tea. The present attack began with epigastric pain, vomiting, and diarrhœa, and she came under the care of Dr. Ewart after having been examined by Dr. Dakin and found to be free from uterine disease. She was then much exhausted, the pulse was large and very tense, and the radial artery was tortuous. The costal arch was depressed and the abdomen was flat, tender, and tense, A pulsating mass with a systolic bruit and thrill could be indistinctly felt in the left epigastric and umbilical regions. The vomiting of all ingesta and even of plain water persisting in spite of the ordinary measures of treatment and diet malignant disease or ulcer of the stomach was suspected.

Operation and remarks by Mr. JAFFREY.—Dr. Ewart asked me to see this case in consultation with him on August 26th. There was a swelling midway between the umbilicus and the ensiform appendix which appeared to me to pulsate more freely than one would expect from a growth of the stomach lying over the aorta. However, taking into consideration the symptoms and the swelling we agreed that an exploratory laparotomy should be done; this I did on the following day. I made an incision from four to five inches long above the umbilicus. The stomach presented in the wound and on examination it was found to be quite healthy though dilated. On pulling the stomach out of the wound there appeared to be between from half a pint to one pint of fluid collected in the most dependent part of the fundus. The colon appeared to be normal and the walls of the stomach did not appear to be materially thinned. I attempted to press some of the fluid into the duodenum but did not succeed in getting much to pass, and on further examination the swelling which we had felt through the abdominal walls proved to be a large fusiform aneurysm of the abdominal aorta. It commenced about half an inch below the aortic opening of the diaphragm and extended to the level of the umbilicus. The pyloric end of the stomach was flattened over the convex surface of the aneurysm; so much so that it caused obstruction to the passage of the contents of the stomach to the duodenum. This seemed to me to be partly due to the weight of the dilated stomach and its contents and of the colon and omentum. I deemed it advisable to pull as much as possible of the stomach over to the right side of the aneurysm so as to relieve this pressure. As the stomach seemed inclined to remain in its new position I did not think it necessary to fix it in any way. The patient rapidly recovered from the operation, the wound was dressed with dry cyanide gauze, and the sutures were removed on the eighth day. There was slight vomiting frequently recurring for several days in connexion with nausea excited by the smell of brandy. The alarming symptoms disappeared and the patient slowly improved and became able to take solid food and to walk for short distances. She complained of burning sensations in the epigastric region and had general hyperæsthesia of the abdomen, but the pulsating mass was less easily felt; this was no doubt due to the fundus of the stomach being placed between the aneurysm and the abdominal wall.

Remarks by Dr. EWART *on the case and on an analogous case of "duodenal obstruction by mesenteric traction."*—Besides its practical bearing upon treatment importance attaches to the case in relation to the nature and site of the obstruction. It illustrates in a fresh association a mechanism previously described in another connexion but which needs to be more widely recognised with a view to rational treatment. The mechanism is one of combined tension and pressure, the pressure arising from the firm resistance of the vertebral column, or, as in this case, of a tumour, and the tension from the dragging weight of prolapsed viscera. In this case it has been made clear how these forces operated; its peculiarity is that the obstruction occurred above the pylorus instead of occurring below it and that the stretching was due to the weight of the fundus and of its contents and was completely relieved by raising the stomach.

Another case (Case B) which I may be allowed to mention illustrates the same mechanism in connexion with the duodenum, as it was originally described by Rokitansky and subsequently by Glénard, Kundrat, Schnitzler, and others, and recently by P. A. Albrecht, from whose elaborate paper[3] the chief references are taken. The patient was a woman, aged 59 years,[4] who had suffered from progressive and intense anæmia and loss of flesh for 18 months and recently from

[1] A clinical case read before the Harveian Society of London on Oct. 19th, 1899.

[2] Medical Register, No. 1444, 1899.

[3] Ueber Arterio-Mesenterialen Darmverschluss an der Duodeno-Jejunalgrenze und seine ursächliche Beziehung zur Magenerweiterung (with bibliography). Virchow's Archiv, Band civi., Heft 2, 1899.

[4] Medical Register, No. 1604, 1899.

severe exhaustion and sloughing stomatitis. A fortnight before admission into St. George's Hospital vomiting set in for a week. Persistent vomiting occurred again during her stay in the hospital, in spite of treatment and diet and of the administration of water per rectum, until the time of her death. At the necropsy a recent purulent pleuro-pneumonia, probably secondary to the stomatitis, was found at the right base, but there was no gastric or pyloric disease. The transverse colon was inflated and formed a considerable U-shaped loop downwards, but it was otherwise normal. The entire small intestine was collapsed and empty and contained within the pelvis, allowing the elongated mesentery to come into view. At the upper part of the latter could be seen the inflated duodenum which contained thick bile-stained fluid. The case differed from those described by Albrecht in that the stomach was not dilated but contracted. In the patient's exhausted condition a mechanical obstacle such as that found after death at the duodeno-jejunal junction was probably sufficient to have impeded the normal progress of the gastric contents.

This form of duodenal obstruction is discussed by Albrecht exclusively as a relatively frequent cause of acute dilatation of the stomach. I am not prepared to admit that gastric dilatation is either its necessary result or its necessary antecedent, and I believe that in the same group may have to be reckoned other cases of uncontrollable vomiting in which the stomach may never have been dilated and may ultimately, as in Case B, have been kept empty by the vomiting.

Rokitansky had shown that viscera might act by their own weight, not only in directly compressing the intestine, but also in producing compression indirectly by dragging. He had further pointed out that the tendency of a small intestine which has become empty from exhausting diarrhœa, vomiting, and practical starvation is to drop into the pelvis and by its weight to stretch the mesentery; and he insisted upon the share taken in this compression by the superior mesenteric artery itself and the fibrous strands which accompany it. Subsequently Glénard recognised independently the same compressing agency. But the clinical history of the subject was inaugurated by Kundrat's paper on a Rare Form of Internal Incarceration based upon three fully recorded cases; and this was followed up by Schnitzler's and by Albrecht's important studies. The two latter observers have published cases in which the vomiting commenced immediately after protracted operations under anæsthetics, and Albrecht draws attention to the unfavourable influence which may be exerted by a prolonged anæsthesia in predisposed subjects, and to the likelihood that acute gastrectasia, particularly when occurring after long operations, may be set up in this way.

Various factors have been suggested as sharing in the production of duodenal obstruction by mesenteric traction. Kundrat dwells upon the loss of the normal expansion of the folds of the mesentery. Schnitzler believes that any twist of the mesentery to the right would favour this mode of occlusion. Undue prominence of the lumbar vertebræ, as pointed out by Schnitzler, and gastric atony, as put forward by Kelynack and as admitted by others as an accessory factor, would both favour the obstruction. The influence of atony of the abdominal parietes is disputed by Albrecht. Some patients presented a flat and tense abdomen, though the characteristic condition common to most of the cases was flattening below the umbilicus with bulging of the gastric area. L. Meyer believes it possible that a stomach much depressed at its pyloric end may produce direct pressure upon the duodenum. Albrecht, whose theme is the production of acute gastric dilatation by the mesenteric tugging, is not deterred by the consciousness of a vicious circle from supporting Hanau's view that gastric dilatation is the force which stretches the mesentery by driving the small intestine into the pelvis and preventing it from rising again. Lastly, Schnitzler lays stress upon the occasional abnormality of an unduly long mesentery.

I am inclined to regard the apparent elongation of the mesentery as due to its wasted condition in abdominal marasmus and to its being no longer held up by the bold convolutions of an intestine of normal length and size. I agree with Schnitzler in thinking that complete emptiness of the small intestine is the essential cause of its prolapse. In chronic cases long-continued intestinal starvation from anorexia and dyspeptic vomiting leads up to its becoming absolutely empty and to its shrinking both in length and in circumference. This considerable contraction of the intestinal channel may in itself become a source of obstruction and I suspect that it may play a part in the pathology of extreme cases of anorexia nervosa and of hysterical vomiting, though in these cases the suspected intestinal contraction might be originally nervous and reflex rather than marasmic. At any rate, the duodenal occlusion would seem to be best explained as secondary to the intra-pelvic prolapse—most common in females (Kundrat)—which is itself brought about by intestinal shrinkage as a primary factor. The available pelvic space is no longer to be filled by a few coils but takes them all, and their absence from the abdomen may be then disguised either by a dilatation of the stomach, as in the cases mentioned by Albrecht, or by a dilated colon as in my own case (Case B).

As regards the all-important question of treatment it is clear from the foregoing that in all cases of persistent vomiting in emaciated and exhausted subjects we should bear in mind the possibility of this mode of causation, and that in all such cases among our earliest treatment and before laparotomy is resorted to the effect of posture should be tried. In cases such as the case exhibited and Case B, in which the difficulty is purely mechanical, it is probable that adequate relief might be given by substituting for the dorsal position, which allows full scope to the obstructing force of gravitation, either the right lateral or the prone decubitus. Schnitzler's case seems to have been the only one in which the condition was diagnosed and successfully treated. The prone position proved effectual after all other measures had failed. The knee and elbow position advocated by Albrecht may often be impracticable owing to the patient's weakness. I would suggest that in such cases, in addition to the right lateral decubitus to be assumed, the pelvis should be raised by pillows and the foot of the bed also raised, and that suitable manipulation of the abdomen should be applied by the medical attendant himself. In uncomplicated cases these measures might obviate the necessity for surgical interference, which is more likely to be required in cases where gastric dilatation co-exists; but in these lavage is the first and indispensable indication.

ACRO-ARTHRITIS DIGITORUM OF TROPHO-NEUROTIC NATURE, WITH ACRO-MEGALIC SYMPTOMS.

BY J. ROSS MACMAHON, M.B., C.M. ABERD.

A MAN presented himself for treatment of a condition of his fingers which had commenced about two or three months prior to the date of my seeing him. The only noteworthy point in the history of the case elicitable was that in running downstairs some three months before the condition evidenced itself he slipped his foot and was rather peremptorily seated. Accruing from that event he had suffered from a strained back and had consulted a medical man. Nothing could be laid hold of to justify a rheumatic or gouty constitution; the man was under middle age, muscular, well knit, and enjoyed good health. A week or two sufficed for the disappearance of his strained back and a slightly nervous condition had obtained since the accident. In appearance the ends of all the fingers and the thumbs of both hands were greatly increased in bulk, giving a clumsy, enlarged, club-shaped appearance to the digits. Looking at them on the flat and from the sides they were thickened and broadened to a considerable extent, interfering with the free movement of the fingers. There was no bogginess or pitting on pressure present pointing to anything of an œdematous nature; the feeling was one of increase in the bulk of component parts. The nails retained their normal contour but their quality was altered, being brittle, broken, furrowed, and lustreless. They were sunk in the surrounding hypertrophied tissue which encroached on their surface. The skin of the affected area was tender, whilst it and the subcutaneous tissue were much increased in thickness. A uniform increase in circumference of the bone of the terminal and second phalanges also occurred; the increase was more or less gradual—that is to say, in passing from the normal to the increased measurement. Perhaps the most striking change was in the terminal phalangeal joints. These were

completely disorganised and the resemblance to the tabetic arthropathy described by Charcot was most marked; in truth, the only dissembling feature lay in the absolutely bilateral symmetry. There was no effusion in and around the joints and the articular surfaces of the phalanges were freely moveable over each other in all directions. Grating was a distinct feature on rubbing the opposed surfaces over each other. Absolutely no pain was felt on manipulating the affected joints and there was no bony or cartilaginous accumulation at the sides. Symmetry ruled supreme, the condition affecting the terminal phalangeal joints, and so far them only. Notwithstanding the extensive disorganisation there was a fair degree of mobility in the joints, and considering the extent of the changes there was a minimum of discomfort. The finer sense of feeling was almost in abeyance, but the blunter sense of touch remained nearly the same; this was manifested in the fingers, where the process appeared to have become inactive. The patient's "grip" was weaker than formerly, but no muscular atrophy was discernible; the knee-jerks were present to a slightly marked extent.

The condition began as nearly as possible synchronously in each finger, one or two digits lagging behind the others for a week or two. In one or two fingers the skin tenderness had subsided and the activity of the condition had seemingly passed, leaving the finger-ends enlarged and the joints disorganised. A further point of interest in the case lay in the fact that the patient attributed his condition to the mishap which he had met with on the stairs, and, indeed, it is possible to conceive that such may be the case.

The affection is strongly suggestive of nerve disturbance, whether of peripheral or central origin—a view which is strengthened by a glance at some conditions which throw light on the case. Many curious symptoms and conditions are manifested in diseases resulting from affections of the nervous system. In locomotor ataxy, for example, the skin occasionally becomes thin, red, and shiny, "glossy skin" (Paget); herpes, a tylotic condition of the skin of the soles, and a perforating ulcer sometimes obtain. The nails also are not unseldom brittle, furrowed, and thickened. In syringomyelia and Morvan's disease endemic in Brittany trophoneurotic changes occur in the skin, bone, &c., manifested by bullæ, ulcers, hyper-keratosis, hyperidrosis, glossy skin, whitlows, and necrosis of phalanges, which combine with disordered sensations, paralysis, &c., to constitute a disease indicative of mischief in the spinal cord.

Changes also occur in bone in many nervous diseases. It is a matter of almost daily comment that fractures occur very readily in the insane. In tabes dorsalis fractures occasionally occur spontaneously and the bones are very porous; it is likewise notorious that in the course of union of a fracture the callus formation is most prolific. Dr. J. Alex. Williams, in a paper entitled Remarks upon the Osseous Lesions of Locomotor Ataxy,[1] after describing a case of tabes in which arthropathic symptoms and profuse bone formation were features, goes on to say that ankylosis occurred in the feet owing to bony enlargement around the joint. The joints of the hands and feet became affected and the left shoulder, wherein the acme of destructive change was recorded. Two years before death the movements of the shoulder were found to be limited; there had been no pain and no effusion had occurred, only rapid disorganisation of the joint. The position of the bone was ascertained to be that which occurs in subglenoid dislocation. Then follow diagrams showing numerous osteophytes round the head of the bone in its articular cavity. In the same case the whole shaft of the right femur was increased by three or four inches in circumference consequent on a fracture and resulting callus formation.

Absorption and shrivelling of bone and tissue is a not infrequent phenomenon in nerve leprosy, often affecting part or the whole of a finger or toe, leaving a tolerably shapely stump.

In Morvan's disease and syringomyelia necrosis of the phalanges is presented. Both Marie and Peterson have recorded cases where syringomyelia was combined with bony increase. The condition of joint found in the case which I have described is, as previously remarked, similar to the arthropathy of tabes. There was evidently absorption of the cartilaginous pads around the articular ends of the affected bones and with that a certain amount of bony absorption or destruction, rendering the ligaments loose and abnormal mobility possible.

[1] THE LANCET, Dec. 9th, 1882, p. 977.

The same condition of joint obtains in syringomyelia with probably greater frequency than in tabes. Grof, in analysing 35 cases of joint disease associated with syringomyelia including four original reports by Professor Brune, says that joint affection occurs in 10 per cent. of the cases of syringomyelia at an early stage of the disease, before the complete development of muscular atrophy and sensory disturbance. He further remarks that it resembles tabetic arthropathy in every respect, with less effusion in the joint. The same writer rejects the idea of the dependence of the joint disease on cord mischief, alleging that this is opposed by the fact that syringomyelia is not always accompanied by arthropathy and that in most cases where it exists it is monarthritic—a refutation, in my opinion, like a house of cards. The association has called forth comment from various other writers—to wit, Professor Weil, Professor Charcot, Professor Sonnenburg, Dr. Mills, Dr. Galloway, Dr. Jackson, Mr. Lunn, &c.

The few important facts and innuendoes which have gone before make it probably correct, without being guilty of *petitio principii*, to state that the condition emanates from a neurosis, either central or peripheral, and the bony hypertrophy arising therefrom serves to shed a light on the true nature of acromegaly—is, indeed, another testimony of its probable tropho-neurotic nature.

Mr. Jonathan Hutchinson, in what he terms "Last Joint Diseases" or acro-arthritis, says that it "occurs when with a liability to Raynaud's phenomenon we have also a strongly inherited tendency to gout. It may be held as a complication of recurring or almost habitual acro-asphyxia in individuals inheriting arthritic tendencies." The pathological *casus* in Raynaud's phenomenon is evidently a peripheral or central neurosis, acting on the vessels, causing spasm of the arterioles.

In the *Glasgow Medical Journal* of 1894 Dr. Middleton describes a case of acromegaly with joint affections. It was undoubtedly one of acromegaly; the hands were broad, flat, and spade-like, the forehead was enlarged, &c., and, besides, the joints of all the fingers with certain others were loose, and crackling was elicited on movement. Further on he remarks that according to Pierre Marie, Souza-Reite, and Mr. Hutchinson joint affection with acromegaly is so atypical as almost to exclude the diagnosis. Dr. Middleton goes on to say that these deformities strongly indicate a trophic origin and at once suggest a similarity to Charcot's joint and that they are a further indication of the profound nature of the trophic disturbance which must be considered at the root of acromegaly.

That the joint affection is of so-called "tropho-neurotic" nature is scarcely open to doubt. Gout and rheumatism are eliminated by history and appearances. The hot, red, angry surface, the exquisite tenderness, the monarthritic tendency, and asymmetrical character of gout are significant by their absence. The same may be said of rheumatoid arthritis with its tardy, painful, irregular, deforming attributes, its accumulations at the sides of the joint, and its general symptoms. We have only to turn to the arthropathies of tabes and syringomyelia to find its parallel in diseases where tropho-neurosis is eminently manifest and where profound central lesion is evident to all. Everything warrants the claim that this is of similar gender—in fine, a tropho-neurosis or alteration of nutrition of the part due to a modified nerve control arising from a central or peripheral neurosis. But the crux of the matter lies in the fact that here, concomitant with a joint affection arising from a neurosis and constituting the disease, we have a hypertrophy of bone and tissue similar to that found in acromegaly.

Dr. J. Arnold[2] records nerve changes in various parts of the brain and spinal cord in connexion with acromegaly. In 1894 the same author gave an account of a necropsy on an acromegalic patient and remarked that changes were found in the peripheral nerves, the brain, and the spinal cord in various parts. Dr. Arnold thought the changes secondary in both cases.

With the bony overgrowth we connect in the mind the profuse callus formation attendant on fractured bone in a tabetic patient, the occasional association of acromegaly and syringomyelia, and the records of osteophytic formation in tabes to corroborate the fact that where tropho-neurosis is present in a part, bone formation, far from being at a minimum, is really above parity. Does this not furnish a finger-post to the nature of acromegaly? Assuredly an "x" is afforded—may be by something local; may be by

[2] Virchow's Archives, vol. cxxxv., 1892.

the peculiar tendency whereby, the same conditions of origin being constant, different tissues are affected in different individuals, and even in the same individual at different times; may be by distant position from the controlling centre of the nervous system, homologous to what is found in Raynaud's disease.

Unfortunately I was unable to watch the case, the details of which I have given above, as the patient disappeared, but I had the feeling that fresh developments might manifest themselves and let in more light, perhaps explaining the muscular weakness and the other symptoms. The remarkable definition of the affection—the distal and diseased part contrasting sharply with the proximal and normal part—is very peculiar and, added to the severe regularity of the symmetry and the other features, constitutes a condition at once interesting and instructive.

Kensington.

A CASE OF SUB-PERITONEAL SACLESS HERNIA CONTAINING THE BLADDER.

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THE following case is interesting from the rarity of the condition and absence of the accepted causes.

The patient was a married woman, aged 35 years, the mother of three children, the youngest of whom was two years old. She was seen on July 20th, 1899, and was then complaining of a painful swelling in the groin. She attributed it to lifting a heavy weight three days previously, but she could not be certain that some amount of fulness had not been there before. The pain was not bad enough to make her keep to her bed, though it was relieved by lying down. There was no vomiting or constipation, but there was an uncomfortable feeling on micturition. The pain was described as being of a dragging character. On examination a swelling was felt at the situation of the external abdominal ring. The tumour was of about the size of a walnut, round in shape but capable of indentation, doughy to the feel, irreducible (not even diminishing in size), and without impulse on coughing, and though it was somewhat tender there was no marked pain on pressure. Menstruation was normal and was not attended with great pain. All the other organs were healthy. There was no sore on either toe or leg or vulva. The diagnosis rested between (*a*) an omental hernia, and (*b*) an enlarged gland, except that the tumour was rather highly placed for a gland belonging to any of the recognised anatomical groups.

An operation was advised and carried out on July 23rd, with Dr. Richard Wood's assistance. A small vertical incision was made over the tumour and after exposing the pillars of the external abdominal ring a fatty substance was seen extruding from it. This was carefully dissected through in the expectation of coming on the peritoneal sac, and at the bottom of the mass there was found a thick tissue which though at first taken to be a thickened sac was identified finally as the wall of the bladder. To make sure a puncture was made into it and a few drops of urine escaped. A suture was placed in the bladder wall and the fatty mass was cut away. One suture closed the opening into the abdomen. The wound was sewn up and dressed in the usual way. The first urine was passed eight hours after the operation; it contained a small clot and a slight admixture of blood, thus distinctly proving that the viscus opened was the bladder. Recovery was uneventful.

Hernia of the bladder is a rare condition and the above case presented some interesting points. One of these was the absence of a peritoneal sac. According to Treves herniæ of sub-peritoneal fat are found only in the linea alba above the umbilicus and these, with protrusions of organs not covered by peritoneum, are the only cases in which sacless herniæ can occur. The perivesical fat is a continuation of the general sub-peritoneal fat and thus would come under the same heading, but in this case the protrusion came through the linea semilunaris and not through the linea alba. In the middle line, as the fibres interlace, many small intervals are left through which the underlying fat protrudes, and it is allowable to suppose that a small defect may exist in the ingenious arrangement of the muscles attached to the os pubis, by which arrangement the inguinal canal is formed and strengthened. Through this, likewise, the perivesical fat may protrude, and we have all the conditions of a fatty hernia in the middle line. Another analogy then presents itself. The epigastric hernia often drags after it a small pouch of peritoneum. Now, this flimsy structure varies very much in the strength of its attachment to the different viscera. From the kidney it is easily peeled, but with difficulty from the liver, and it is fairly firmly fixed to the anterior abdominal wall; in fact, most of the sac peritoneum in an oblique hernia is derived from that covering the iliacus muscle. As the dragging action exerted by this fatty protrusion must expend itself on something, and supposing the peritoneum to be firmly fixed to the anterior abdominal wall, this something might reasonably be the bladder as it happens to be the nearest most moveable viscus.

The second point of interest depends on the following considerations. Mr. Macready lays down three necessary conditions for a hernia of the bladder[1] and Mr. Morris[2] closely follows him. These are: (*a*) a convenient opening; (*b*) a distended or displaced bladder; and (*c*) a distensible bladder wall. Considering these in detail and trying to fit this case to them some incongruities are met with. (*a*) A convenient opening. I have shown above how an opening may occur where this hernia came through and it is permissible to suppose that a congenital opening or weak place did exist and Dr. Englisch quoted by Mr. Macready[3] describes occasional openings with pouches of peritoneum. (*b*) A distended or displaced bladder. Most of the recorded cases of cystocele have occurred in old men in whom prostatic enlargement and stricture with their sequelæ have been well marked and may therefore have played an important part in producing the condition. In this case, however, the bladder does not seem to have been subject to more strain or distension than most women's bladders are called on to endure; certainly there was no stricture or any obstruction to the passage of the urine. (*c*) A distensible bladder wall. The most distensible part of the female bladder met with clinically is that part which looks towards the vagina, but if this heading is to be accepted as a necessary cause in the case recorded the most distensible part would be above the symphysis pubis. No marked vaginal cystocele was to be found here and as much of the bladder as was exposed had a normal appearance. It may have been the wall of a sacculus, but, as far as I know, these have not been described in the female.

It thus seems that protrusion of the bladder can occur without the hitherto necessary conditions and I should be inclined to quote the clinical history of the case as follows: (1) a rent, congenital opening, or weak place in the fibres making up the conjoined tendon; (2) through this a protrusion of the perivesical fat; and (3) by the dragging action of this protrusion, aided possibly by intra-abdominal pressure, a pouch of the bladder being pulled through instead of peritoneum. Why the bladder should be preferred to the peritoneum is uncertain, but possibly some peculiar attachment of the fibrous bundles in the fat or some peculiar defect in the bladder may account for this unusual state.

Bromsgrove.

SCARLET FEVER, APPENDICITIS, AND ACUTE GENERAL PERITONITIS; RECOVERY.

BY A. M. SUTTON, M.B. LOND., M.R.C.S. ENG.

A YOUNG man, aged 19 years, had for some weeks been helping to nurse a patient suffering from appendicitis, and on the recovery of the latter he went back to his home in a village, 12 miles away, where scarlet fever was at the time epidemic. On April 15th, 1894, he returned to visit the convalescent and immediately upon his arrival complained of feeling ill. I was asked to see him and found him looking flushed and complaining of severe headache and sore-throat. While I was in the house he vomited a small quantity of food which he had taken soon after coming in. I found the temperature to be 101·6° F., the pulse 118, and the respirations

[1] Ruptures, p. 279.
[2] Treves's System, vol. ii., p. 919.
[3] Ruptures, p. 135.

20. Physical examination revealed nothing except that the fauces were red and swollen. The appetite had been good and the bowels regular up to the date mentioned. The next day I found that the patient had a well-marked scarlet fever rash and that his throat was very sore. On the 17th the rash was fully developed and the throat was still very painful. In the evening, after taking about three ounces of milk, the patient complained of abdominal pain and shortly afterwards he vomited the milk in a curdled condition when the pain was at once relieved. The bowels had acted regularly every day from the first. On the 21st the patient was costive and had some griping pains, in consequence of which I palpated the abdomen but made out nothing except that I fancied that the right iliac fossa was a little full. An ounce of castor oil was administered with satisfactory results and the patient felt much more comfortable and went off quietly to sleep. The rash was quickly fading. On the 23rd I found the patient lying curled up in bed complaining of abdominal pain which was increased by any movement. An examination revealed tenderness over the whole abdomen, but no fulness anywhere or any specially tender spot. The temperature was 102·4°. I gave a quarter of a grain of morphia subcutaneously which afforded great relief. Towards night the patient felt a desire to defecate but was unable to do so. A soap-and-water enema produced a large natural motion and made him feel much better for a time, but in about half an hour the pain returned worse than before. Still the patient could not refer it to any particular region and examination gave a negative result, but the whole abdomen was slightly tympanitic. At 8.30 P.M. I injected a third of a grain of morphia. At 9 P.M. the patient had a severe rigor, and frequent, uncontrollable vomiting, chiefly of bilious matter, set in, which lasted till midnight. The temperature fell rapidly, from 102° at 9.30 P.M. to 100° at midnight. The patient became rapidly collapsed towards the morning, and the pulse mounted and became hard. On the 24th, at 1.30 A.M., the patient was in a state of collapse and had a very anxious countenance. The temperature in the mouth was 97° and the pulse was 140 and small and wiry. After a most careful examination I could find no certain indication for an exploratory operation, and I was 60 miles, by wagon-road, from skilled assistance or a second opinion. The abdomen was now uniformly rigid; the pain had ceased and the vomiting had nearly ceased. I gave one drachm of brandy every half hour, and three ounces of hot beef-tea every hour. The patient got rapidly worse till 11.30 A.M., when his face was blue and covered with cold sweat, and his extremities were quite cold, in spite of hot bottles, &c. The pulse was hardly perceptible at the wrist—it was about 160 as near as I could count—and the temperature in the mouth was 96°. The mind was quite clear. At 12.30 P.M. the patient seemed to rally. The pulse fell to 120, and later it fell to 100. He became warmer and of a better colour, and the extreme collapse quickly passed away. At 9 A.M. on the 25th the temperature was 101° and the pulse was 88; the tongue was dry and hard and the abdomen was still very rigid. The face was anxious. There was no pain or vomiting. Milk and lime-water, ice, and brandy (from one to one and a half drachms) were given every hour. On the 26th, at 9.30 A.M. the temperature was 101° and the pulse was 84. The abdomen was softer and was becoming tympanitic and the face was more natural. The patient passed some flatus and a small quantity of clear mucus. At 6 P.M. he passed a small motion.

The patient went on very much the same for many days. The temperature kept up; it was about 100° in the mornings and 103° in the evenings. The abdomen was soft and tumid and the resonance over the intestines was tympanitic, until May 4th, when I made out a distinct dull patch in the right lumbar region opposite the umbilicus, and a day or two after I felt a distinct lump there. I found nothing in the right iliac fossa. I could never detect any fluctuation in the tumour which I have mentioned. Good motions, which were frequently preceded or followed by a discharge of clear mucus, were passed about every other day. On the 7th I made out some dulness in the right iliac fossa, the lump above in the loin became more marked but it never seemed to extend downwards into the iliac fossa. It always appeared to have a well-defined lower margin. At last, on the 15th, a copious motion was passed, consisting of pus and mucus streaked with blood. After this the lumbar tumour vanished, the temperature became normal, and the patient rapidly became convalescent. He has been under observation ever since, and has remained in perfect health. It should be added that after the temperature fell the patient desquamated very freely.

It is curious that the sufferer in the previous case of appendicitis, which my patient assisted in nursing, presented no difficulty in diagnosis and terminated in exactly the same way by an abscess which discharged per rectum. In the previous case also there was considerable local peritonitis, but the patient was never in the jeopardy which I have described above. I refrain from further comment on the case hoping that some of my brethren will give me the benefit of their criticism.

Nicola Lake, British Columbia

MUSIC IN MEDICINE.

BY JAMES T. R. DAVISON, M.D. EDIN.,

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AMONG the ancient Greeks the word "music" had reference to any act over which the Muses presided. In the present day the word is restricted to that special art which makes use of the phenomena of sound in order to re-act upon the auditive sensation of the brain. In these notes a more comprehensive meaning will be attached to it and music will signify that art which gives harmonic life to the æsthetic emotions.

Few will care to deny that the æsthetic emotions exercise a most powerful influence over the human organism, although in these days of exact science, where everything is measured and everything is weighed, the practical recognition of such a virtue is apt to remain in abeyance. But truth does not cease to be such because it is more than ordinarily removed from an imperfect human perception. At the best we possess but a very relative knowledge of anything, however simple. Let us then not demur, from want of precise scientific accuracy, to enter into realms from which we may perchance bring down balm to assuage some of the sufferings of humanity. Sonorous music has, from the earliest times, been employed as a healing agent. It has been suggested that in prehistoric times music passed through three stages of development: (*a*) instruments of percussion; (*b*) wind instruments; and (*c*) string instruments. The first of these stages can be exemplified by the clapping of hands and stamping of feet in marking rhythm. It was probably to this kind of music that the incantations of the ancient Egyptians belonged—incantations where rhythmical accentuation might predominate over variation of pitch and thus be better perceived by the untutored ear. Maspero in his work on the "Dawn of Civilisation" states that the disciples of Thoth had control over words and sounds which when emitted at the favourable moment and with the "correct voice" had power over the gods to make them do and undo at their special will. We may presume that the incantations which are found presented in the medical papyri were likewise to be emitted with the "correct voice" and therefore contain an element of music. The oldest Egyptian medical papyrus known was found in 1889 at Kahûm by Professor Petrie, and Mr. Griffiths of the British Museum has translated extracts from it. In this papyrus, whose date is about 2500 B.C., only one incantation occurs, and it has reference to the diagnosis of a woman's fertility. But in the Ebers medical papyrus, in the Brugsch papyrus, and in the British Museum medical papyrus, all of which date about 1000 years later than the Kahûm papyrus, incantations are found prescribed for the treatment of diseases, sometimes alone, at other times accompanied by drugs. Again, we read in the Bible that when Saul (a few centuries later than these papyri) was afflicted with an evil spirit his servants told him that they knew of a cunning player on the harp who if brought to him would dispel the spirit. Saul accordingly sent for the harpist, who was no other than David, and when the evil spirit came upon him David took a harp and played with his hand and "Saul was refreshed and was well, and the evil spirit departed from him."

Coming down to classical times we learn that the Greeks discriminated several forms of music according to their influence on the body, under the names of Phrygian, Lydian,

Æolian, and Doric styles. According to Fournier-Pescay, "the confidence of the ancients in the therapeutic virtue of music was carried to a great length." Aulus Agellus, a writer born in the reign of Hadrian, speaks thus of the healing power of the flute: "It is a belief widely scattered that a man afflicted with an attack of sciatica feels the intensity of his illness sensibly diminished if anyone placed close to him elicits soft and melodious sounds from a flute." He also quotes Democritus when the latter affirms that "in many diseases the sounds of the flute have been a sovereign remedy." But it was in the Middle Ages when the influence of music on disease became manifest to a hitherto unparalleled extent. To Justus F. Hecker, the medical historian, we are indebted for a full description of those epidemic manias where music was had recourse to as a healing agent, with results as extraordinary as they were uniform in their action.

The dancing mania which afflicted mediæval Europe is said to have developed in a mental soil, which the depressing influences of the enormous devastation produced by the black plague had rendered suitable for the reception and growth of intellectual aberration. The dancing mania took its origin in Germany, spread throughout the whole of this country, and propagated itself to neighbouring countries. People formed themselves in circles, hand-in-hand, and appearing to have lost control over their senses continued dancing for hours together in wild delirium until they fell to the ground utterly exhausted. Music had the effect of developing the attack in a more rapid manner, and in order to bring the attack to a close as soon as possible and thus avoid greater prostration in those affected the public authorities hired musicians to play before the dancers. Soft harmony had the effect of calming the excitement in those who were attacked. Contemporaneous with the St. Vitus's dance of Germany the mania appeared in Italy in the form of tarantism, believed by the people to be connected with the bite of a serpent. Here music had the effect of exciting ecstatic attacks and afterwards of exorcising the melancholy which succeeded these. Many had become weak in the sense of sight or of hearing; some had lost the power of speech and all were insensible to the ordinary causes of excitement. At the sound of the flute or cithern, however, they awoke as if it were by enchantment, opened their eyes, and moving slowly at first, according to the measure of the music, were as the time quickened gradually hurried on to the most passionate dance. Matthioli, quoted by Hecker, was an eye-witness, and he describes how the afflicted, though they might lay prostrate in bed, at the sound of music sprang up as if inspired with new life, and unmindful of their disorder began to dance for hours together without fatigue, until covered with a kindly perspiration they felt a salutary degree of lassitude which relieved them for a time at least, perhaps even for a whole year, from the dejection and oppressive feeling of general indisposition. After being bitten by the tarantula there was, according to popular opinion, no way of saving life except by music. It was customary, therefore, for whole bands of musicians to traverse Italy during the summer months in order to undertake the cure of the tarantati in the different towns and villages. The tarantellas employed were of different kinds. The Panno Rosso was a lively, impassioned style of music; the Panno Verde was adapted to excite the senses in a lesser degree; whilst the Spallata was the slowest music of all. A remarkable condition attending those affected was that they could not endure false notes. It was likewise observed that rustic people who had previously been aliens to the enchantments of harmony acquired in this respect an extremely refined sense of hearing. The special influence of different styles of music was manifested by the violent gestures expressive of aversion which the patients exhibited when they listened to what did not harmonise with their particular conditions.

During the last few years attention has been again called to the influence of music in disease. In London Canon Harford, an enthusiastic believer in the efficacy of this mode of treatment, organised bands of musicians under the auspices of the Order of St. Cecilia who might visit hospitals where permission was accorded and there exercise the beneficent action of this art. The results obtained showed that in music a therapeutic element existed which was not to be despised and which in suitable cases might prove of great utility to the sick. In 1892 Dr. J. Ewing Hunter obtained permission from the authorities of the Helensburgh Hospital to place a piano in one of the wards in order to study the therapeutical virtues of music. Several ladies generously offered their assistance and the patients were then submitted to the influence of instrumental and vocal music of a kind calculated to relieve their sufferings. As a result of this experiment Dr. Hunter, in a letter to the *British Medical Journal*, gives the following testimony: "The cessation, or, at least, diminution, of pain has been very marked in many cases." Later, referring to the effects on temperature, he adds that "seven out of ten noted cases were benefited in so far as a reduction of temperature was recorded." In 1896 Dr. Beschinsky, a Russian physician, had to treat a child, three years of age, who suffered from sleeplessness due to night terrors. Having used in vain several methods of treatment he at last had recourse to music. He advised the child's mother to play one of Chopin's waltzes. The effect was immediate and satisfactory. After four nights of this medication the treatment was interrupted and the child's condition became more aggravated than it had been previously. The waltz was again played, at first nightly, then every second, and afterwards every third night. The cure was then complete and permanent. Fournier-Pescay treated his own son, who suffered from constant pain and insomnia, by means of the flute with satisfactory results. Dr. Bourdois de la Mothe was attending a young woman who for 18 days had been suffering from a severe fever. The pulse was extremely weak, the face was hippocratic, and the extremities were icy cold. On leaving the sick chamber Dr. Bourdois de la Mothe saw a harp in another room of the house and it occurred to him to try the effect of music. A harpist was sent for who on arriving played during half an hour without any visible change having been noticed in the state of the patient. Music was persisted in, however, and ten minutes after the patient began to breathe better, her feet grew warmer, the pulse became stronger, and after a hæmorrhage from the nose she began to speak once more, becoming convalescent a few days later. The results in this case may have been due to a mere coincidence, but, when we consider the influence that the mind exercises over even infectious diseases, there appears nothing extraordinary in music being the determining factor in the production of a favourable crisis.

But it is not only in their clinical aspect that the effects of music have been studied. Dogiel made a series of experiments with men and animals in order to test the influence which music exercises over them in the normal state. The following are the conclusions which he arrived at: (*a*) music exhibits an influence on the circulation of the blood both in animals and in man; (*b*) the blood-pressure sometimes rises and sometimes falls; (*c*) the action of musical tones and pipes expresses itself for the most part by increased frequency of the cardiac contractions; (*d*) the variations in the circulation consequent on musical sounds coincide with changes in the respiration though they may be also observed quite independently of these; (*e*) the variations in the blood-pressure are dependent on the pitch and loudness of the sound and on the tone colour; and (*f*) in the variations of the blood-pressure the idiosyncrasies of the individual, whether man or animal, are plainly apparent, and even the nationality, in the case of man, has some effect. Professor Tarchanoff of St. Petersburg has made some important investigations, and by means of an apparatus called the "ergograph" found that fingers which had been fatigued either through voluntary efforts or by electrical excitation regained their strength under the influence of music. If, however, the music was of a sad character it exercised an opposite effect, the muscular contractions becoming checked or entirely inhibited.

It is natural that music should exercise its influence over the human organism in the relief of pain. Pain is a special condition of the sensorium felt as distress and is due to a special stimulation of central or peripheral origin. Music is likewise a special stimulation which, travelling from the periphery by other routes, reaches the sensorium and there gives rise to a sensation felt as pleasure. In the sensorium these two sensations have to struggle for existence as they cannot exist simultaneously, and whichever of the two adapts itself more conformably to the then reigning conditions of that central organ will gain the day. When the victorious sensation is that of pleasure pain will cease to exist, but as the conditions of the sensorium are not exactly identical in any two cases music will sometimes be powerless to dislodge pain from its stronghold. Again, in insomnia this state may be kept up

by a continued stimulation of the sensorium, but music producing a counter stimulation of the same organ neutralises the former and thus allows sleep to re-assert itself. But music undoubtedly exercises its influence over the body without the intervention of the highest nervous centres. The soldier marches, in time to the sound of the drum, although his attention may be completely taken up with the objects he sees on the road, and the movements of the dancer follow the strains of the orchestra when his brain hears no other music than that which his fair companion inspires him with.

It appears, then, that the human organism participates in that tendency to vibrate synchronously with music which sometimes obtains in the inanimate world. Here the tendency is sometimes very marked. If a musical chord conveniently stretched is placed near another similar chord which is made to elicit its own note the former will vibrate synchronously with it and produce an identical sound. Even flames can be made to re-act to music. Many years ago this was discovered by Professor Leconte. Tyndall, in his work on Sound, quotes Leconte's observations. "Soon after the music commenced I observed that the flame exhibited pulsations which were exactly synchronous with the audible beats. This phenomenon was very striking to everyone in the room and especially so when the strong notes of the violoncello came in. It was exceedingly interesting to observe how perfectly even the trills of this instrument were reflected on the sheet of flame. A deaf man might have seen the harmony. As the evening advanced and the diminished consumption of gas in the city increased the pressure the phenomena became more conspicuous." Tyndall subsequently discovered that smoke-jets and even water-jets could be made to change their form by means of music, the changes taking place when the vibrations of the former entered into synchronism with those of the latter.

This tendency to vibrate synchronously with music which is found in the inanimate world, I repeat, appears also to exist in the case of the human organism. There are cases of psychological exaltation which correspond to the high notes of the musical scale, as there are states of depression whose pitch is found in the lower notes of the same. There are illnesses in which it is highly important to change the key in which the psychological state of the patient is vibrating, and if this change, upon the realisation of which depends often the very existence of life, can be brought about by taking advantage of a tendency to vibrate in consonance with a given musical tone, what a vast field of beneficent utility will be reserved for the art of music when allied to that of healing. It will enter the path of human suffering, scattering everywhere the balm of tranquillity and finding fertile action when directed to expel disease from the body by exalting the spirit of the patient.

In the historic dancing epidemics of the Middle Ages the influence exercised by colour became very manifest. In Germany those attacked by St. Vitus's dance became so infuriated at the sight of red that public authorities were obliged to prohibit the use of this colour in the dress of the people. In Italy the influence of colour was likewise very marked, but, contrary to what happened in Germany, Italians generally preferred red. Some, however, were more pleased with yellow, others with black, while some became delirious with joy at the sight of green. The excitable character of Italians made them an easy prey to the influence of colours. Hecker relates how those who were attacked ran like infuriated animals at the sight of their favourite colour, devouring it with anxious eyes, kissing and caressing it in every way, until gradually they relaxed into softer emotions, adopting the languid expression of the enamoured, whilst with weeping eyes they passionately embraced the handkerchief or whatever other object carried the colour of their affections. On one occasion Cardinal Caystano was visiting a monastery at Tarentum where one of the Capuchin friars was suffering from the disease. The red cape of the cardinal overpowered the monk who, unable to rush at the colour which was fascinating him, impeded as he was by those who stood by him, endured great suffering until at last he rolled to the ground in a state of unconsciousness. The cardinal, taking compassion on his pitiable state, handed him over his cape, whereupon the monk seizing and pressing it against his bosom began to dance with the greatest frenzy.

An attempt was made in 1895[1] to translate sonorous into colour music. Mr. Wallace Rimington, an artist, constructed an instrument called by him the colour organ. In this instrument properties such as rhythm and variety of combination, which previously had been associated only with sonorous music, were now applied to colour. This organ had a key-board and each note its respective colour which was reflected upon a screen when played. The ordinary spectrum was represented by an octave. With this organ music from Chopin and Wagner was represented in colour and produced generally a pleasing sensation in those who had the opportunity of witnessing it. Possibly with the progress of time instruments destined to exhibit the harmonies of colour music will be perfected, as also the artistic capacity to appreciate this new art in its subtle evolution will be increased, but it will never be necessary for the sick to reach a high degree of artistic culture in order to be able to receive the benefits which colour music in its simple manifestations can bestow on them. The influence exercised upon the sick by the beauty of colour and of form is a matter of daily observation. If a convalescent, with weakened appetite, sits at a table where slovenliness and disorder have presided in its arrangement he will not eat. But let the same patient be taken to another room where a bouquet of flowers, standing in relief upon the whiteness of a tablecloth, enters into artistic combination with the objects placed upon the table and his appetite will be stimulated. After a prolonged fever a patient escapes from the storm with his strength exhausted by the struggle he has had to sustain in order to save himself from wreck, and during convalescence the oscillations on the balance of life are so unstable that very little weight will incline it definitely on the side of death. It is therefore all important that in this state the mental condition of the patient should be favourable for the recuperation of that vigour which the organism has lost. To arrive at this state of psychological well-being the harmony of colour and of forms, acting upon the æsthetic emotions, can be of great assistance. It is to be observed that the association of joy with certain colours and of sadness with others bears no relation to the respective position which each colour holds on the chromatic scale. For example, the lowest note in this scale—that is to say, that one which to be perceived by the brain produces the lowest number of vibrations per second—is red, and this colour is by no means associated with sadness; neither is violet, which is the highest note in the chromatic scale, associated with joy. In the epidemics of the Middle Ages the same colours did not always produce identical effects of joy or aversion. In the therapeutic estimation of the value of colours the tonality of these cannot, then, have reference to their positions in the chromatic scale, but only to those which they respectively hold through tradition or association in the mind of different nations, races, and even individuals.

In order to attain to a psychological state of well-being it is not prudent abruptly to interrupt the low note in which the temperament of the patient may be vibrating, with excess of gay colours and fulness of solar light, but rather at first softly to approach to his pitch in order afterwards, rapidly if desired, to lead him to higher tones. The sombre colour which the objects of a room assume with the scanty penetration of light may be suitable to a patient in whom visual excitation fatigues a brain which is in need of perfect rest, but when the mind can with impunity associate itself with the external world, the bright sun and gay lines of flowers may stimulate his spirit until the time comes when convalescent he can direct his steps to the country and bathe himself in the sublime colours of nature.

The sensation of touch opens another road through which the æsthetic emotions may be stimulated. A child who vibrating in a high note is rendered a prey to passionate anger can often be soothed when his body, and especially his head, is stroked gently and with low rhythm. It would appear that the sensory nerves of the skin which are in greater relation to the brain are those of the head. When we make a strong effort to remember anything we instinctively scratch our heads, and it is over this part of the body that rhythmical stroking is more potent to produce sleep. The experience of hairdressers shows that the rhythmical touch of the head with the comb and scissors puts many of their clients to sleep and there are persons who, in order to enter into this state, deliberately have recourse to a rhythmical stroking of their head. Massage by rhythmical percussion is an ancient remedy of the Chinese for the relief of certain pains. Not long ago, simultaneously in London and Paris, two different physicians brought out an

[1] THE LANCET, June 15th, 1895.

instrument called the "percuteur," in which an ivory hammer was made to percuss rhythmically by means of electricity. It was suggested that an acute pain was relieved by slow and a dull pain by quick percussion. In order to lull a child to sleep the mother who holds him in her lap often sings mentally while she keeps time gently striking his body with her hand. As in the early days of the human race the audition of rhythmical percussion was the chief class of music which appealed to the scarce development of the æsthetic emotions, so in early infancy the touch of the same percussion in the form of gentle stroking is a music which powerfully acts on the little brain.

The sensation of smell is not to be despised as a means of waking up æsthetic music. However much the poetry of perfumes may be appreciated at the present day it would appear that it was in the dawn of civilisation when it exercised its most powerful dominion over mankind, at least over its gentler sex. Thus, in an Egyptian papyrus which has been called "the oldest book in the world," inasmuch as it contains the proverbs of Ptahhotpu, who lived in the fifth dynasty—that is to say, about 6000 years ago—amongst the sage counsels which are given to the married man he is advised to regale his wife with perfumes, "for these, together with her dresses, constitute the joy of her life." In the ancient civilisation of the banks of the Euphrates the music of fragrance was so highly esteemed that the continuity of its fruition beyond the grave was deemed an indispensable necessity; and so in the tombs of the fair Chaldæans amongst the objects brought there destined for the enjoyment of the soul in another world pious hands never forgot the offering of perfumes. Elements which can so strongly awaken æsthetic emotions are destined to hold a not unimportant place in the therapeutics of the sick. In Japan one of the entertainments held at court requires a very fine culture of the sense of smell. Combinations of perfumes are placed on a table and the game consists in analysing these and finding out of what elements they are composed. It is not necessary, however, to possess such a fine artistic culture in order to reap the benefits which perfumes can bestow in certain illnesses, as, for example, the great relief and comfort which can be obtained during a fever in tropical climates by the inhalation of certain fragrances. There are perfumes which are said to affect certain organs, as the voice, and this has been taken advantage of by artists, who, instigated by their jealousy, have sometimes caused a bouquet of flowers to be handed to their rival as she was preparing to sing, in hopes that, her voice being weakened by their inhalation, she might suffer a defeat in her career. It is known that the presence of a bouquet of flowers in a bedroom during the whole night may give rise to headache or other disagreeable sensations. Although doubtless there are flowers which act perniciously on the brain, yet it is probable that in the great majority of cases the disagreeable effects are due to a too long-continued stimulation by the perfumes. In the same way that a strong light or an intense sound if prolonged for a length of time fatigues and acts injuriously upon the brain, so also this organ likewise suffers when the sense of smell is subjected to a strong and continued excitation. The music of perfumes, like other music of sensations, if it is to prove beneficial must be intermittent in its application.

As regards the music of taste, its sole mention is sufficient to remind us of the important position it holds in the treatment of the sick. In England its power has been recognised and lectures are publicly given having as their object instruction as to the best methods by which the organ of taste can be æsthetically stimulated in the depressing hours of sickness and convalescence.

And now I come to that music which holds the highest rank and within which the different kinds of music I have been detailing can easily find a place—that music which, to give it ample expression, I may name the music of the soul—that state of well-being of the mind which exercises such a powerful influence over all diseases. The organ of the mind is connected with every part of the body and exercises an influence over every process which takes place in them. So long as the mind remains healthy and strong, the whole body, even in its most recondite parts, receives continually the stream of its protective action, but when, owing to psychical causes or physical infirmity, it loses its energy, then the links which bind it to the body are relaxed, and this is abandoned to fight its own battles against the enemies of its health. Sir Samuel Baker, the African explorer, relates that in some parts of the dark continent where malaria is prevalent the traveller who is in any way depressed in his mind is certain to fall a prey to intermittent fever. The same condition obtains in all great epidemics: those who through fear are depressed in mind are more readily taken ill and offer less resistance to the attack. According to the distinguished alienist, Dr. Clouston, two-thirds of the idiots and one-third of the worst cases of dementia in Scotland die from tuberculosis. In all these instances the mind, deprived of its strength—now because psychical causes, like fear, have depressed its energy; at other times because its organ is organically diseased, as in the case of idiots—cannot continue dispensing its ordinary protection to the body, which is then abandoned to its own resources. It is the case of a fortified city which has lost its general, and whereas before the thousands of enemies who attempted an assault lay stretched beneath its walls, now without its leading head it cannot resist further attacks, and the armies of microbes, whether they belong to malaria, tuberculosis, or any other infectious disease, find an easy entrance within the human body and readily become its conquerors. It is in the still hours of the night that the absence of the protective action of the mind becomes most manifest. In these hours the powerful light of day which represents the synthesis of the entire chromatic scale lies hidden beyond the horizon and over the road of visual sensation only the weak vibrations of artificial light find their way, and silence and loneliness replace the diurnal turmoil. The mind, deprived of that stimulation which it receives from its physical contact with the external world, deprived of that even greater stimulation which it derives from the society of its congeners, concentrates itself within itself, becomes depressed, and with this depression the bonds which unite it to the different organs of the body become relaxed. It is then, in those hours, that pains become more acute, fevers acquire greater intensity, and all the sufferings that accompany the sick state are felt in their cruelty. And as the eve of dawn approaches when the vital powers of the organism are at their lowest ebb, death makes its triumphant entry and carries away the greater number of its victims.

But if it is a fact that depression of the mind abandons the body to the enemies of its health it is equally certain that certain exalted states of the same go far to expel diseases from the organism, as is evident from those historical cases mentioned by Dr. Clouston where intense joy produced by the immediate prospect of entering into naval combat has caused the disappearance of scurvy amongst the crew of a fleet. A healthy and strong mind is a spirit which, though not necessarily joyous, possesses at least a state of contentment and well-being incompatible with the existence of depressing influences. When the hour of sickness arrives physical sufferings and psychical pains conspire together to undermine its vigour, and here mental therapeutics in the form of music will find their great application. To physical suffering must be opposed the music of the different sensations to replace, if possible, the vibrations of pain by those of pleasure; and to psychical affliction the music of the soul—that highest evolution of æsthetic emotion which only wakens up to the call of sympathy and kindness in the hour of trouble and to the religious sentiments where piety finds a home. It is necessary to create for each patient a psychological climate where the mind may suffer least during the progress of disease, so that it may be enabled to dispense its maximum of protection to the different organs of the body. This climate can only be that of musical æsthetics, using the words in their most ample signification. Not all are constituted of identical fibres nor have all received the same education, therefore the class of music which in one case will touch the sensible chords of the heart in another will pass totally unperceived. The poetry of a beautiful landscape may vainly knock at the doors of sentiment in the case of one who desires to do away with his life, while the strains of a melody which disinters from the memory the resemblance of a happy past may be potent to destroy the morbid tendency of the suicide. Pharmacological therapeutics will not lose any of their efficacy in the treatment of disease when side by side mental therapeutics in the form of music—in the large sense in which I have here used the word—pursue the same end. On the contrary, this last, while it strives to sustain the vigour of the mind, which is all powerful in the action of remedies, will prove to be its greatest ally.

Buenos Ayres.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ST. MARY'S HOSPITAL.

A CASE OF VIRULENT ACUTE RHEUMATISM WITH EXTENSIVE PURPURA; TEMPORARY IMPROVEMENT FOLLOWED BY DEATH FROM CARDIAC FAILURE; NECROPSY; MICROSCOPY.

(Under the care of Dr. D. B. LEES.)

FOR the notes of the case we are indebted to Dr. POYNTON, casualty physician (late medical registrar) to St. Mary's Hospital.

A girl, aged 17 years, was admitted to St. Mary's Hospital on Jan. 16th, 1899, for purpura and shortness of breath. On the morning of the 13th she had noticed some purple spots about both ankles, followed on the next day by pains in the joints. Upon close inquiry it was ascertained that on the 9th the throat had been sore and that on the 15th there had been a shivering attack. The important facts in her previous history were an attack of chorea five years and an attack of rheumatic fever two years previously.

Upon admission it was evident that the patient was seriously ill; the face was flushed, the temperature was 101·6° F., and the pulse-rate was 120 to the minute. She complained of slight pains in both ankle-joints and the left knee and these joints were swollen. Both lower extremities were covered with purpuric patches of varied size and upon the outer sides of the legs there were erythematous areas indicative of a fresh outbreak of purpura in these positions. The pulse was regular and easily compressible. The cardiac impulse could not be seen but was felt in the fifth intercostal space almost in the anterior axillary line. The percussion limits of the deep cardiac dulness were as follows: two and a half fingers' breadth external to the left vertical nipple line and two fingers' breadth external to the right sternal margin, the upper limit being the third rib. There was no pericardial friction, but over the region of the impulse there were systolic and presystolic murmurs. The aortic second sound was clear but the systolic murmur audible over the region of the impulse could be traced, though with diminishing intensity, to the tricuspid, pulmonary, and aortic areas. In the left axilla there was pleural friction and there were scattered râles in both lungs. The urine was free from albumin and blood. Neither the liver nor the spleen could be felt. To briefly summarise the condition, it represented the features of a severe attack of rheumatism in a patient who was already predisposed to the disease, the special clinical interest being the marked cardiac dilatation and extensive purpura. The day after admission a sore-throat again developed and then the purpura, though fading upon the legs, appeared upon the elbows and forearms. The pleural friction remained constant and the cardiac dilatation increased. The line of treatment that was adopted was application of the ice-bag over the heart when pericarditis appeared and the administration of salicylate and bicarbonate of soda.

During the next week some dulness was discovered at the base of the left lung and the purpura became much more extensive over the arms and also appeared upon the face and abdomen. The patient was now looking very ill and was wasting considerably. The temperature was, however, never high, seldom reaching 101°. On Jan. 24th, eight days after admission, general pericardial friction developed and during the next few days the purpura spread over the abdomen and back and became so extensive as to baffle description. In many places there were large sanious bullæ and over the back the epidermis began to give way, leaving raw and painful surfaces. During this week the liver rapidly enlarged and reached the umbilicus, the respiration rate rose from 28 to 48 per minute, the lungs were congested, and a fatal termination appeared to be imminent. Venesection was resorted to for the relief of the right heart failure, and cultivations, aerobic and anaerobic, were made by Mr. Plimmer and Dr. Poynton of the blood taken from the median basilic vein with every precaution. Upon two occasions a pure growth of cocci arranged in chains was obtained. In one of the anaerobic tubes a bacillus was also present but Dr. Poynton failed to isolate it. It was a point of some interest that where carbolic compresses had been used to the arm for antiseptic preparation purpura rapidly appeared and was very marked, whereas cotton-wool wrapped round the tender joints produced no such effect. The fluid from the bullæ gave a growth of staphylococci. Examination of the blood showed no leucocytosis of note.

The pericarditis remained evident for the next three weeks, the extent of the friction gradually diminishing. Throughout this period the patient was extremely ill, the legs became œdematous, the purpura still further increased, and there was orthopnœa with great prostration. By the middle of February there was slight improvement, the temperature rarely reached 100°, and the cardiac inflammation slowly diminished. Digitalis and nux vomica were now given and the improvement was steadily maintained. At this time the most noticeable symptoms were attacks of dyspnœa and blueness, with paroxysms of præcordial pain. By the end of March there was a distinct gain in every way, the purpura had subsided, the skin was healing, and the œdema had disappeared. Good sleep was obtained, and though the area was still very extensive the cardiac sounds had become more defined. During April the patient was able to lie upon a couch daily, but it was evident that she was not gaining flesh, as was hoped, and she complained occasionally of the old pain over the præcordial region. There was no evidence of a relapse of rheumatism and no more purpura developed, but it seemed rather that the damage to the heart had been so severe and the circulatory power so enfeebled that the nourishment of the tissues could barely be maintained even at this low level. On April 12th the pulse became irregular and there was troublesome vomiting. The liver rapidly enlarged and the venous congestion increased. The patient lingered on for a few days and then died almost suddenly on the 15th from cardiac failure.

Necropsy.—A post-mortem examination was made 24 hours after death. The heart was much dilated and the left lung was collapsed and lay hidden behind the left ventricle. The pericardium was adherent, the adhesions being of recent date. Although the area of præcordial dulness had been so extensive yet there was no fluid in the pericardial sac, this being obliterated by the general adhesion. The right limit of the heart occupied by the right auricle did not when traced downward curve inward at its lower part to join the right ventricle, as is normally the case, but extended in a straight line to the diaphragm. This is a fact of some importance, for the inward curve of the right border of the cardiac dulness has been looked upon by some authorities as a useful assistance in distinguishing between pericardial effusion and cardiac dilatation. When, however, there is great dilatation of the heart this cannot be relied upon, for on this and several other occasions Dr. Poynton has observed this alteration in the contour of the auricle. The cardiac muscle was profoundly altered and of a pale purple colour. The mitral, aortic, and tricuspid valves were all slightly thickened, the mitral to the most marked extent. There was no recent valvulitis, and rigidity rather than stenosis of the mitral orifice. In the first part of the aorta there were some patches of aortitis and there was a small infarct in the spleen. The remaining viscera showed the changes usually observed in severe cardiac failure. The pleuræ contained no excess of fluid, but on either side there were recent pleuro-pericardial adhesions.

Microscopy.—Sections of the heart walls were made in several situations and some of the tissues were fixed in perchloride of mercury and others in Hermann's fluid. Throughout the entire wall, including the papillary muscles, there was extensive fatty change in the muscle fibres. Scattered through the heart wall there was also a cellular exudation between the muscular bundles, which, though not extensive, was definite. A very striking feature in the sections was great capillary dilatation, and though the capillaries are more than usually apparent in fatal cases of acute rheumatism this quite exceeded any that Dr. Poynton had observed before.

Remarks by Dr. POYNTON.—Considered from the standpoint of the relation of rheumatism to infective endocarditis this case is of some considerable interest. The extraordinary

purpura pointed to a profound alteration in the blood such as occurs in septic rather than in rheumatic conditions and the cultivations of streptococci from the blood also supported this view. But the clinical course was that of virulent rheumatism and the necropsy showed results which are associated with rheumatic rather than infective endocarditis. It is in such a case as this that the difficulties in separating these two conditions become apparent. If rheumatism be the result of a specific micro-organism may it not be that infective endocarditis now and again represents some phase of that specific rheumatic infection in which the virulence has become exalted or the resistance altered in some unusual manner? A very clear picture can be imagined of an alcoholic patient becoming the victim of tuberculosis, but it is more difficult to apply this principle of secondary infection to rheumatism and infective endocarditis, for the former disease may produce endocarditis, infarction, purpura, sweating, and fever, and the latter need not necessarily produce suppuration.

Again, apart from the extreme purpura, this case presents features of interest as an example of virulent rheumatism. Thus, pericarditis did not become manifest until eight days after admission, yet from the first the cardiac dilatation pointed to a fresh rheumatic infection. No doubt pericarditis may exist before detection by the friction, but it may well be doubted after the study of such a case as this whether dilatation, which so commonly precedes rheumatic pericarditis, is to be explained by any latent pericardial inflammation. That there is slight pyrexia in severe rheumatic affections of the heart is a well-recognised clinical phenomenon and of much interest now that fever is more and more looked upon as an evidence of reaction to infections. The enfeebled circulation may have some profound influence—a chemical one—in preventing this reaction: a condition perhaps comparable to the low temperature and feeble heart of the pneumonia in alcoholism and to the last stages of severe septicæmia. The attacks of præcordial pain during the period of improvement were compatible with a severe myocardial affection, and the necropsy proved that it could not be due to a previously thickened and generally adherent pericardium. The marked fatty degeneration of the muscular fibres has doubtless an important meaning. This change in the cardiac muscle is frequently regarded as due to an impaired circulation. It is, however, much nearer to the truth to speak of it as due to a poisoned circulation, for it is found in alcoholism, typhoid fever, diphtheria, and in other infections. In diphtheria the condition of the heart wall may almost precisely resemble that found in rheumatism, and there is but little doubt that diphtheria acts directly upon this structure.

In conclusion, I must thank Dr. Lees for permission to publish this case in detail.

BUFF BAY HOSPITAL, JAMAICA.

TWO CASES OF CUT THROAT WITH OPENING OF THE AIR-PASSAGE.

(Under the care of Dr. EDWARD R. C. EARLE.)

IT is still an unsettled question whether it is desirable in all cases of cut throat completely to close the opening into the air-passage. It was formerly taught that in no case should the wound be quite closed, for œdema of the larynx was very likely to supervene and prove fatal before help could be obtained. Since the introduction of the use of antiseptics the tendency has been towards immediate closure of the wound of the larynx, for it has been found that the diminution of sepsis has resulted in a great decrease in the number of cases in which œdema of the larynx has occurred, and the teaching of the present day is generally that the wound may be completely closed at once with impunity. This is only true of cases which are seen a short time after the infliction of the wound and in which no laryngeal inflammation has commenced. When, however, many hours have intervened between the injury and the operation it is advisable to leave the aperture in part unclosed, so that asphyxia cannot supervene, and this is especially advisable when help cannot be speedily obtained should suffocation threaten. Dr. Earle's two cases are interesting examples of severe cut throat and show how comparatively slight is the general disturbance in such cases if no large vessels have been severed.

CASE 1. *Cut throat; trachea almost completely severed.*—On Jan. 26th, 1893, a coolie was admitted into the Buff Bay Hospital, Jamaica, at 3.10 P.M. with his throat cut. The injury had been inflicted during the previous night and he had been sent in an uncovered cart a distance of 13 miles under a hot tropical sun from the banana plantation to which he was indentured. There was nothing on the neck but a piece of sponge which was covering the wound. Dr. Earle saw him at 4.30 P.M. There was a transverse cut four and a half inches in length across the middle of the throat, the centre of the cut corresponding with the mid-line of the neck; the edges were clean cut and the wound was gaping widely open. All the muscles and tissues in front of the trachea were cut through and the trachea itself was severed for two-thirds of its thickness at a spot just below the cricoid cartilage. No large vessels had been cut and there was no bleeding of any importance. A silk suture had been inserted by the medical officer of the estate through the front of the trachea so as to approximate its cut edges. The patient was conscious and suffering but very little pain, with a slight cough at times. The wound was carefully cleansed and rendered aseptic and three catgut sutures were inserted in the trachea, one on each side and one in the mid-line, and then the cut edges were brought together. The exposed tissues were dusted with iodoform and two silk sutures were passed through the skin on either side and the edges of the external wound were approximated, about two inches of the middle portion of the wound being left open to admit of drainage. No blood-vessels required to be ligatured. The external parts were cleansed and the wound was dressed antiseptically; the head was kept bent forwards, the chin touching the sternum, by means of tapes passing from the forehead to a band around the chest and the patient was supported by a bed-rest. He drank water without difficulty on his arrival and during the night was able to take milk frequently. He passed a good night and slept well, coughing at times, but had no fever. During the next day and night there were no fever and but very little pain in the throat. The pulse was regular and slow and the patient could swallow milk easily, taking small sips at a time.

On Jan. 28th the wound was dressed; there was very little discharge and it appeared to be progressing well. One suture was removed and replaced owing to the lower flap curving inwards. There was no fever. Air passed freely through the wound in the trachea. On the 30th the wound was again dressed. There was a hard swelling just above the suprasternal notch with inflammation in the lower flap due to the collection of the discharge behind the flap, caused by the action of gravity. Air still passed through the tracheal opening. At 2.15 P.M. the patient became cyanosed and had a severe attack of dyspnœa, which soon passed off; this was without doubt the result of some of the discharge entering the trachea through the wound. One of the external stitches on the left side was removed to relieve tension and admit of freer drainage. The pulse was 96 and the temperature was 101·4° F., but they soon came down to normal. On the next day (the 31st) the patient was more comfortable; the lower part of the throat was still swollen and painful, but the drainage was free, the temperature was normal, and he took nourishment readily.

From Feb. 1st to 3rd the patient continued to improve. The opening in the trachea had almost closed, there being left only a small hole in the mid-line about a quarter of an inch in diameter. The wound was dressed each day. On the 4th at 11 A.M. a very severe attack of coughing came on which lasted about an hour. Just before this he vomited some water; possibly some of this got into the larynx and caused the attack of coughing. Whilst it lasted he was almost suffocated. The temperature went up to 103·6° but returned to normal during the afternoon. He coughed a good deal during the night but had no fever. On the 5th there was a free discharge of sweet pus from the wound. From the 6th the progress of the case towards recovery was uneventful; the trachea gradually closed, as also did the external wound, the lower flaps having a tendency to curve inwards, but this was easily overcome. On the 27th he could speak distinctly and without difficulty. He left the hospital on March 23rd perfectly well.

CASE 2. *Cut throat; upper part of the larynx completely severed.*—On June 13th, 1893, an indentured coolie was admitted into the Buff Bay Hospital, Jamaica, at 3.50 P.M., with a large transverse cut across the throat, four inches in length, along the upper border of the thyroid cartilage. The injury had been inflicted during the previous night and

he had travelled in an open cart a distance of 12 miles under a tropical sun with nothing whatever over the wound, not even a bandage. The upper part of the larynx had been completely severed and the edges of the wound had retracted, leaving an open space about two inches wide, exposing the anterior wall of the pharynx. All the muscles and tissues uniting the tongue and hyoid bone to the thyroid cartilage and the thyro-hyoid membrane had been cut through. There was no hæmorrhage at the time of admission.

An endeavour was made to unite by a couple of sutures the thyroid cartilage below to the thyro-hyoid membrane above, but such severe coughing (and as a result bleeding) was induced on trying to insert the needle into the cut tissues that the attempt had to be abandoned. The cut edges were approximated by bending the head forwards and the skin flaps were brought together by two silk sutures, one on either side of the mid-line. The wound was thoroughly cleansed and dressed antiseptically; no vessels required to be ligatured; the head was kept forwards by a cap and tapes, the chin almost touching the sternum. The pulse was regular and fairly strong. The patient drank two cupfuls of milk during the night, but he was restless, coughing up mucus intermingled with blood. There was no fever and the pulse remained regular and fairly strong, about 70. On the 14th he coughed up a slight amount of blood with the sputum. On the 15th the cough continued, the sputum consisting only of clear mucus. There was no fever. The wound was dressed, there was no inflammation, and there was very little discharge, which was quite sweet. The patient drank two pints of milk during the day. From June 17th to the date of his discharge (July 20th) the patient made an uninterrupted recovery. The wound healed rapidly. On June 23rd he could speak easily, distinctly, and without pain. On July 4th some exuberant granulation tissue along the edges of the wound was removed by caustic. He took full diet (solid food) on July 6th and was discharged well on the 20th. He was ultimately convicted of "attempted suicide" and sent to prison.

Remarks by Dr. EARLE.—There are few sights which are more ghastly to look at than that of a bad case of cut throat—the widely gaping wound in the neck, the opened windpipe, and the hissing of the air through the severed tissues all tend to make this injury one of the most frightful spectacles that one is ever called upon to witness. It is in cases of this nature, where recovery takes place after weeks of careful watching and patient nursing, that the surgeon experiences the most intense feeling of satisfaction in having been able to save a fellow creature's life. The joy that is felt in watching day by day and hour by hour a case which at one time appeared to be hopeless, but which by constant care he sees gradually improving and progressing towards recovery, is one that is reserved for the members of the medical profession alone and is in many instances their only reward.

The two preceding cases came under my care when I was in charge of the Government hospital in Buff Bay. The results in both these cases were eminently satisfactory, though they had been subjected to the most unfavourable conditions. Both patients arrived at the hospital considerably over 12 hours after the infliction of the injuries, after having travelled in an uncovered cart, exposed to the midday rays of a tropical sun, a distance of 12 and 13 miles respectively. In the latter case the wound had not even been covered during all that time. Luckily no large arteries had been severed. In neither case were there any lung complications. This fact was no doubt due to the warm temperature of the air, for the thermometer must have registered from 110° to 120° in the sun. In both cases recovery was complete, the acts of speech and deglutition being unimpaired.

UNIVERSITY COLLEGE OF SOUTH WALES AND MONMOUTHSHIRE.—The half-yearly meeting of the court of governors of this college was held at Cardiff on Oct. 19th under the presidency of Lord Tredegar. Mr. H. Thompson, who presented the statement of accounts, said that there was a favourable balance of £479, this being due to the increase in fees received. He added that the expense of the medical school was very great and appealed to those who had already subscribed to the endowments of that school to increase their donations. Mr. J. L. Treharne and Dr. Alfred Sheen were elected members of the council.

Medical Societies.

MEDICAL SOCIETY OF LONDON.

The Infectivity of Malignant Growths.

A MEETING of this society was held on Oct. 23rd, Dr. F. T. ROBERTS, the President, being in the chair.

Mr. BELLINGHAM SMITH and Dr. WASHBOURN communicated a paper upon the Infectivity of Malignant Growths. They first considered the various theories which had been brought forward from time to time to explain the origin of cancer. The embryonic theory of Cohnheim was capable of explaining such tumours as the enchondromata of bone and certain sacro-coccygeal tumours, but did not give a satisfactory explanation of malignant growths. Local irritation such as was caused by a broken tooth would give rise to local epithelial proliferation, but that was hardly sufficient to account for the various phenomena of malignancy. Both injury and chronic irritation were to be considered only as predisposing causes just as they were of tubercle, an admittedly parasitic affection. Experiments showed that embryonal cells when transplanted were capable of limited multiplication and thus gave some support to the theory of Cohnheim. Dr. Lambert Lack had performed an important experiment. He opened the peritoneal cavity and, splitting the ovary, scraped the cut surface and diffused the scrapings through the abdominal cavity. Twelve months later at the necropsy numerous masses of malignant growth, having all the features of columnar-celled carcinoma, were found in the abdominal cavity. If this single experiment were confirmed it would form a basis of explanation of secondary infective characteristics, but it presented several difficulties in the way of explanation. The analogies existing between tubercle—a bacterial disease—and malignant growths were pointed out as suggestive of the parasitical origin of the latter. A number of instances of accidental inoculation in the same individual from pre-existing growth were given and the possibility of re-infection during operation was insisted upon. A reference was made to the experimental inoculation of individuals and cases were mentioned in which there was good evidence of the accidental inoculation of one individual from another. The geographical distribution and the so-called cancer houses supported the view that cancer was infective. It was found to be more prevalent in shallow, low-lying valleys. The experimental evidence of the infectivity of cancer in animals was considered. Cancer had not been satisfactorily shown to be capable of transmission from the human being to the lower animals. There was, however, definite evidence of the transference by inoculation of cancer from one animal to another of the same species. Their own work upon infective sarcomata in dogs, which was briefly quoted, was quite conclusive. They had succeeded in passing these growths through a series of dogs. Sometimes the tumours disappeared, as, indeed, they did in man, when presumably the resisting powers were great; sometimes when the puppies were weakly they continued growing and gave rise to secondary deposits. One very important observation was the fact that if the growth subsided the animal was immune to subsequent inoculation. The direct evidence of the presence of parasites in malignant growths was considered and the experiments of Sanfelice were described. The latter, by the inoculation of a blastomyces obtained from fruit juice, produced what appeared to be carcinomata in dogs. The analogy between tubercle and malignant disease was fully discussed and the two diseases had counterparts in every feature. In both general tuberculosis and general sarcomatosis there were late infection of glands and a marked cachexia, and in addition both might arise after local injury or irritation. Concerning the nature of the bodies found in cancer-cells some doubt still existed. They presented certain morphological relations with protozoa from the animal kingdom on the one hand and with blastomycetes from the vegetable kingdom on the other. The coccidia found in rabbits were probably of the same nature. Experimental inoculations with the saccharomyces neoformans seemed to support the vegetable origin, and Plimmer had isolated a blastomyces from a human cancer which re-inoculated into animals had produced cancer. A difficulty existed in explaining why

secondary deposits should be always of the same histological structure as the primary growth; and, it was suggested that it was necessary for both the parasite and the epithelial cell to be conveyed to distant parts and that the former caused a proliferation of the latter. Finally, Mr. Bellingham Smith and Dr. Washbourn formulated the following conclusions: (1) a malignant growth might be regarded as local in origin and as possessing the power of infecting adjacent and distant parts of the same individual; (2) inoculation might take place from one part to another of the same individual apart from transference by the natural channels; (3) there was good evidence to show that one individual might be infected with growth from another; (4) there was experimental evidence to show that growths might be transferred from animal to animal of the same species by inoculation; (5) there were found in many malignant growths bodies which had a resemblance to micro-organisms and which had been regarded as belonging either to the protozoa or the blastomycetes; (6) a new growth having the structure and also the behaviour of carcinoma had been described as occurring, at any rate, in two instances from inoculation with a form of blastomyces; and (7) these experiments were highly suggestive that the bodies found in cancer were the cause of the disease, though the evidence was wanting that directly associated the two.

Mr. JACKSON CLARKE said that he had had an opportunity of examining some of the preparations made by Dr. Washbourn and Mr. Bellingham Smith and he regarded them as typical sarcomata. The experiment performed by Dr. Lambert Lack which had been referred to by Mr. Bellingham Smith and Dr. Washbourn was of great importance, but he could not regard it as conclusive as to the etiology of new growths. An emulsion of living ovarian cell-clusters set free in the peritoneum would be absorbed and widely distributed in the lymphatic glands where they might grow as multiple epithelial implantations. Some years ago Mr. Clarke had advanced a view based on histological observations to the effect that malignant growths were due to sporozoa intimately associated with tissue cells. Although on reconsidering the basis of this view he had recognised that the proof was incomplete, some of the appearances would still bear this interpretation. With regard to the interesting observations of Sanfelice, Roncali, and others on the blastomycetes, he did not think that they were altogether conclusive and before he relinquished the philosophical for the practical aspect of malignant growths he had thought that they might prove to have some relation to one or more of the specific fevers, bearing to them a relation similar to that borne by the later lesions of syphilis to the earlier stages of that disease.

Dr. SYMES THOMPSON mentioned two instances bearing on malignant infection which he had observed. Two men, not related, but who had married sisters, both developed epithelioma of the tongue within a few years of each other. One of them never smoked at all and the other had smoked only cigars. The other case related to a man affected with epithelioma of the tongue which was removed. Two years later the disease returned and half the tongue was removed. There was no recurrence for three or four years; then it recurred and it was then found to be sarcoma. One and a half years later secondary tumours formed in the neck. These also were removed and were found to be sarcomatous. He wished to refer to the fact that the two diseases occurred in the same patient.

Dr. HEYWOOD SMITH thought that the main infectivity of cancer was an auto-infectivity. From 25 to 30 years ago he operated on a girl, aged 14 years, for malignant disease of both ovaries at a time when her temperature was 104° F. Some of the fluid from the peritoneum was left in a corner of the theatre. He performed an ordinary ovariotomy a few days later in the same theatre and the patient made a rapid recovery in the usual way. However, two or three weeks afterwards she began to ail and died within two months. Large malignant masses were found at the necropsy in the abdominal cavity. Reviewed in the light of recent discoveries he thought that this case might have been one of infection. The first patient had very high fever at the time and the peritoneal fluid was probably highly infectious.

Dr. LAMBERT LACK, while admitting the infectivity of malignant growths, did not like altogether to accept the parasitic view. If this were correct the secondary growth ought to assume the same type of growth as the part invaded. He referred to a case of squamous-celled epithelioma of the tongue producing secondary squamous-celled growths in the stomach. If it were a parasite it ought to have been a columnar-celled cancer. This tended to show that it was the actual epithelial cells which were conveyed, endowed it would seem with some acquired infectivity. Such facts as these supported the inflammatory view. Again, pure carbolic acid had been poured into a malignant wound and yet it had not destroyed the growth. If there was a parasite it was certainly a very resistant one.

Dr. A. G. AULD thought that the kind of epithelium met with was not such a matter of importance as the previous speaker believed.

Dr. JOHN MCFADYEAN referred to the fact that sarcomata were of mesoblastic origin and in view of this circumstance asked, Why should they not get an infection without the epithelium? If malignant growths were of parasitic origin this was a completely isolated fact in the whole of parasitic pathology. There were other kinds of malignant growths, also, such as the adenomata, and these merged into other histological structures. He thought such facts as these were against infectivity only in presence of epithelium. And, again, why was it that in melanotic sarcoma they always contained pigment? These and other facts were opposed to the parasitic view.

Dr. WASHBOURN, in reply to Mr. JACKSON CLARKE, said that the bodies found in malignant cells might from their morphological appearances be either protozoa or blastomyces: it was only by their behaviour that a distinction could be drawn. Several explanations might be given of Dr. Lack's experiment. The ovary might have been diseased and also in this single experiment it might have been that the cancer from which the animal undoubtedly died might have been accidental. Referring to Dr. Symes Thompson's second case, in which an epithelial growth of the tongue was followed by a sarcoma, in his own experiments when he injected the infective matter into epithelial tissue, epithelial tissue was reproduced elsewhere; but if the same material were inoculated into the veins of dogs it produced nodules which had mesoblastic characters. Thus the same organism might produce either one or other kind of growth. A growth partook of the character of the growths from which it sprang, not of that to which it was carried, and one could only suppose that the cells were conveyed with the parasite.

OPHTHALMOLOGICAL SOCIETY.

Presidential Address.—Interstitial Keratitis in Acquired Syphilis.—Recurrent Superficial Necrosis of the Cornea.—Radiant Heat in the Treatment of Eye Diseases.—Exhibition of Specimens.

THE first ordinary meeting of the session of this society was held on Oct. 19th, Mr. G. ANDERSON CRICHETT, President, being in the chair.

The PRESIDENT in his opening remarks thanked the society for the honour it had done him in electing him and he paid tribute to the many eminent ophthalmologists who had preceded him. He had watched the society ever since its first inception under their revered master, Sir William Bowman, and it was to him (the President) a life-long regret that his honoured father did not survive to occupy the chair. But though his name could not be enrolled among the Presidents of the society, yet it must ever hold high rank amongst the great pioneers of ophthalmology and his memory was in safe keeping with all who knew him. The President then proceeded to deal with the evolution of cataract extraction since Daviel first attempted it in 1745. Prior to that time couching and discission were the only recognised operations. His operation was a simple extraction, and although it gained numerous adherents there were many who relied on the more primitive methods, and even as late as 1838 it was stated by Guthrie that "there are reasons which will ever prevent it being practised by the great body of the profession." The statistics, however, of cataract extractions were, notwithstanding, remarkably good. He next described in detail the old flap operation. When done with skill and success it gave an excellent result, but so often a large prolapse of iris occurred, and in those pre-antiseptic days primary suppurations were numerous. The dawn of a new era was foreshadowed at Moorfields, when it was found that the results of one of the surgeons less skilful than his fellows were exceptionally good. This gentleman usually accidentally did an iridectomy. The first definite change was made by Professor

Schuft, whose efforts at reform were somewhat radical. He made a slit-like opening at the corneo-scleral junction, did a large iridectomy, and then inserted a spoon with which to remove the lens, but this often caused loss of much vitreous. Then in 1864 the President's late father read a paper at the Congress at Heidelberg on the excellent results achieved by himself and Mr. Bowman at Moorfields with linear extraction and this led to von Graefe introducing the knife, still used and always associated with his name. The operation he instituted had its dangers and without great skill and care the operator was liable to encroach on the ciliary region and severe cyclitis and loss of vitreous were not infrequent. Numerous modifications had been mode and the most important were associated with the names of Pagenstecher who removed the lens with a spoon in its capsule, as also did Macnamara and Andrew of Shrewsbury. Lebrun of Brussels and Pridgin Teale made a purely corneal section, but anterior synechiæ and astigmatism were frequently produced. Bell Taylor removed a small portion of the periphery of the iris and left the pupil intact, but the difficulties of the operation were serious drawbacks to its adoption. Förster's artificial ripening and McKeown's irrigation of the anterior chamber must also be mentioned. Ophthalmic surgeons were now divided into two great camps; on one side were the adherents of simple extraction, while on the other were those who were loyal to iridectomy. In spite of recent advances finality had probably not yet been reached, but in the hope that their future might be one of scientific progress they should retain an open mind and a well-balanced judgment, keeping steadily in view the final goal, the relief of human suffering.

Mr. LAWFORD read notes of five cases (four males and one female) of Interstitial Keratitis occurring in the subjects of Acquired Syphilis. In three of the patients the evidence as to syphilis was indubitable; in the other two it was open to question. In the first case the keratitis developed four and a half months after the primary lesion which was situated on the lower lid of the eye whose cornea became involved. In the second case an interval of 11 months elapsed between the primary sore on the penis and the development of keratitis. In the other three cases a longer period separated the primary lesion and the corneal affection. Mr. Lawford drew attention to certain features in these and other previously recorded cases, wherein they differed from the keratitis of inherited syphilis. In the acquired form the attacks of keratitis seemed to be generally of shorter duration and less severity and in most instances only one eye became affected. The prognosis also seemed better, as in the majority of the cases complete or almost complete restoration of the transparency of the cornea ensued. He considered that in three of his cases there was good reason to believe that the keratitis was a syphilitic affection; in the other two he merely noted the occurrence of an interstitial keratitis in patients who had probably had syphilis some years previously.—Mr. LANG said he recorded one such case in the Transactions of the society seven or eight years ago. In a year the cornea cleared. He thought that the application of heat was beneficial and shortened the course of the disease.—Mr. JOHN GRIFFITH asked whether the cases were looked upon as being a secondary or tertiary manifestation.—Mr. LAWFORD, in reply, stated that he considered them both secondary and tertiary.

Mr. DOYNE read some notes on Recurrent Superficial Necrosis of the Cornea and also on the subject of Radiant Heat in the Treatment of Diseases.

The following living and card specimens were shown:—

Mr. SYDNEY STEPHENSON: Congenital Subluxation of the Lens.

Dr. R. E. BICKERTON: A Peculiar Form of Affection of the Choroid.

Mr. R. W. DOYNE: Paralysis of the Muscles of both Eyes.

Major M. T. YARR, R.A.M.C.: Inflammatory Patch in the Retina (? Tuberculous).

HARVEIAN SOCIETY OF LONDON.

Exhibition of Cases and Specimens.

A MEETING of this society was held on Oct. 19th, Mr. H. E. JULER, President, being in the chair.

The PRESIDENT exhibited a case of Microphthalmos in a child aged seven years. The right eye was very small and sunken in the orbit. The cornea was clear but only measured six millimetres in diameter; the iris was slate-coloured, no reticulum was visible, and the pupil was very ill-defined. A whitish patch appeared just below and to the outer side of the centre of the iris. No cyst was visible in the immediate surroundings of the small eyeball. The condition must have been congenital, as there was no discharge from the eye at or after birth. No instrument was used in delivery. The contracted condition of the eye was first noticed three days after birth. The eye was quite blind. The left eye was normal. The literature of the subject showed that these contracted eyes were sometimes normal in structure, whilst others were associated with serous cysts in the orbit and eyelids; others, again, presented abnormalities from imperfect closure of the fœtal fissure. It was proposed to remove the eye on account of the deformity and replace it by an artificial one. Cases were on record in which the use of a glass eye over the living one had set up sympathetic irritation or even ophthalmitis.—In reply to Dr. S. FELCE the PRESIDENT agreed that evisceration would be better than complete enucleation, and in answer to Dr. G. A. SUTHERLAND said that the child presented no other congenital defects.

The PRESIDENT also exhibited a case of Paresis of both External Recti Muscles, with Retinal Hæmorrhage and Staggering Gait, simulating Intracranial Disease. The patient was a man, aged 37 years, who on Oct. 4th was suddenly attacked with diplopia and vertigo. There was no history of syphilis. He had been a hard drinker and for some time had been treated for kidney disease. On admission to St. Mary's Hospital on Oct. 13th he had weakness of both external recti and consequent convergent strabismus. The eyes could not be turned outwards beyond the middle line but the other movements were good. On account of the diplopia he could not walk with both eyes open; with one eye closed the gait was less unsteady. The reactions of the pupils were normal. Both optic discs were hyperæmic and slightly blurred in outline and there were one or two torch-like hæmorrhages in the right retina. The urine contained albumin; its specific gravity was 1018. On the day before admission a convulsive attack had occurred, attended with loss of consciousness. The tension of the pulse was high and the heart was hypertrophied. Rapid improvement occurred in the ocular symptoms and when exhibited there was only slight weakness of the right external rectus and no evidences of organic intracranial disease. It was therefore suggested that the ocular paralysis was toxic in origin, either alcoholic or uræmic. Ocular paralysis of alcoholic origin was very rare without signs of multiple neuritis. On the other hand, if due to uræmia other uræmic manifestations would have been expected. Possibly the condition resulted partly from alcoholism and partly from the chronic nephritis.—Dr. JAFFE thought that the symptoms were probably of uræmic origin.—Dr. CAUTLEY asked if there was further evidence of chronic interstitial nephritis in the presence of cardio-vascular changes. He pointed out that albuminuria might occur in heavy beer-drinkers, apart from renal changes demonstrable either macroscopically or microscopically. No doubt the explanation put forward was the correct diagnosis of the case.—The case was also discussed by Dr. W. J. HARRIS, Dr. FELCE, and Dr. EWART, and the PRESIDENT replied.

Mr. RAYMOND JOHNSON brought forward a case in which he had performed so-called Arthrodesis of the Knee-joint. The boy, who was 16 years old, had suffered from infantile paralysis in infancy and was left with almost complete paralysis of the muscles moving the right knee and partial paralysis of the muscles of the leg. The knee-joint was opened and after the removal of a thin slice from the femur and tibia the two bones were pegged together. Bony ankylosis followed and the boy was now able to walk without the use of any apparatus beyond a thick-soled boot. In a considerable number of cases of infantile paralysis this operation had been performed with advantage in the knee and ankle.

Dr. EWART and Mr. JAFFREY narrated a case in which Laparotomy had been resorted to for the Relief of Uncontrollable Vomiting. For a full report of this case see page 1155.—Dr. JAFFE asked whether the stomach had been washed out before the attempt was made to relieve the vomiting by operation.—Dr. EWART replied in the negative and said that the original diagnosis was carcinoma of the stomach.

Dr. WHITFIELD showed a case of Linear Lichen Planus. The patient was a married woman, aged 34 years. She had always enjoyed good health and had had no illness or accident immediately preceding the appearance of the skin disease. The eruption had commenced about one and a half

years before on the skin over the left tibia immediately above the ankle. When shown there was a band of eruption about one and a quarter inches wide extending from the front of the ankle-joint to the inner condyle of the left femur. At the edges of the band typical lichen planus papules of about the size of a split hempseed could be seen, but in the centre they had run together to form a solid raised ridge. There were no other signs of the disease elsewhere, either on the skin or the mucous membranes. The patient was taking arsenic internally, perchloride of mercury having been tried both internally and locally without any improvement.

Dr. W. J. HARRIS exhibited a man, aged 31 years, who was the subject of extreme Myopathy of the Facio-scapulo-humeral type.

Dr. LEONARD GUTHRIE showed a man, aged 38 years, suffering from complete paralysis of the wrist extensors and of the elbow flexors on both sides with the exception of the long supinators. The affected muscles were much atrophied and did not react to faradaism. The intrinsic muscles of the hands, flexors of the fingers and wrists, and the shoulder muscles were unaffected. Sensation was normal and there was no pain or tenderness of the muscles or nerve trunks. The wrist-drop had occurred two years previously and both wrists were almost simultaneously affected. Twelve months later the elbow flexors on the left side had been involved and 18 months later those on the right side. The case was regarded as one of lead palsy. The patient was a shoemaker. He had never worked with lead or suffered from colic and had no definite blue line on the gums, but he had been in the habit of taking four or five pints of fourpenny ale daily, and this beverage was said by some to be productive of lead-poisoning, especially in gouty subjects like the patient.

Mr. MOWER WHITE showed the Left Testicle which he had removed from a patient, aged 37 years, about two years ago, on the supposition that the globus minor of the epididymis contained a deposit of "tubercle." After removal dissection showed that the nodule, which measured from a quarter of an inch to one-third of an inch in diameter, was situated in the body of the testicle, immediately in front of the globus minor and entirely within the tunica albuginea of the gland proper, while the globus minor was to all appearances quite normal, and the microscope (specimen exhibited) demonstrated that the growth was a spheroidal-celled carcinoma. The upper end of the testicle contained a calcareous nodule (discovered before removal) as large as a hemp-seed, and this was attached to the deep surface of the tunica albuginea. Mr. Mower White further stated that the patient was now in good health and that he showed no evidence of recurrence in the lumbar glands or elsewhere.—Dr. CAUTLEY referred to a similar instance in a man, aged 28 years. The case was at first regarded as tuberculous disease of the globus minor of the epididymis, but on operating a small tumour was found in the lower end of the testis. This proved to be a columnar-celled carcinoma. In view of the fact that secondary dissemination occurred in the glands about the coeliac axis and in other organs in from eight to nine months he asked what was the variety of carcinoma in the present case and how the variety would influence the prognosis.—Mr. MOWER WHITE replied.

FORFARSHIRE MEDICAL ASSOCIATION.

Exhibition of Cases and Specimens. — Symphysiotomy.—Ankylosis of the Tempero-Maxillary Articulation.

A MEETING of this association was held on Oct. 6th in the University College, Dundee, Dr. GRANT, the President, being in the chair.

Dr. J. W. MILLER asked leave to propose the following motion: "That this meeting of the Forfarshire Medical Association desires to record its deep sense of the loss which the association has sustained in the death of Dr. Johnston of Kair at the advanced age of 85 years and its appreciation of the benefit which the association derived from his constant and active support since its foundation," and in doing so mentioned that Dr. Johnston had been President twice, was one of the original members of the association, and was present at its first annual meeting held in Dundee in July, 1859.

Dr. TEMPLEMAN (Vice-President) seconded the motion which was unanimously adopted, and it was also agreed that an excerpt of the minutes be sent to the niece of Dr. Johnston at Kair House.

Dr. FOGGIE showed a patient, aged 28 years, who at every pregnancy except the first suffered from an affection of the nails which he thought most resembled psoriasis.

Dr. GRAY showed three casts of Congenital Deformities and also one of the Hands of a Child in which the Fingers were Fused at the Apices, and a cast of a Large Double Inguinal Hernia.

Mr. GREIG brought forward a cast showing Congenital Suppression of the Digits.

Professor KYNOCH showed:—(1) A Uterus removed from a patient, aged 56 years, who suffered from prolapse which had resisted other treatment, and stated that four months after the hysterectomy a cystocele existed; (2) a Multilocular Ovarian Cyst removed from a patient, 31 years of age; (3) a Papillomatous Ovarian Cyst removed from a patient four and a half months pregnant with no bad symptoms after operation; (4) a specimen showing Early Vesicular Degeneration of the Chorion; and (5) Stratz's Speculum.

Dr. BUIST showed: (1) Ovaries with Subperitoneal Cysts removed for persistent pelvic pain following gonorrhœa; and (2) a collection of Ovarian Cysts, in one of which there were some solid parts showing medullary cancer on microscopic examination.

Dr. BUIST gave the further history of two Symphysiotomies which had been reported in the *British Medical Journal* in September, 1898. The first patient, aged 27 years, had had three confinements, but the infants were still-born in the first two and the child lived 16 hours in the third, in which labour had been induced at seven and a half months. At her fourth pregnancy, in February, 1897, Dr. Buist performed symphysiotomy by Frank's method and a live child was born which, however, died from bronchitis 14 days later. In August of this year she was confined normally of twins, both living. The second patient, aged 21 years, who was rachitic, was delivered of a healthy child (still living) after symphysiotomy by Ayre's subcutaneous method in March, 1898, after having been in labour for two days. On July 5th last, after being in labour 36 hours and with her pulse at 120, she had chloroform and was put in Walcher's position and a healthy child was born naturally. Mother and child have done well since.—Professor KYNOCH, in some remarks on the paper, thought that it was very important that the further history of successful symphysiotomies should be reported as there was evidently a feeling against this operation.—Dr. BUIST, in reply, said he thought that in the poorer classes where good nursing was not available symphysiotomy should be carried out in preference to induced premature labour.

Mr. GREIG read a paper on Ankylosis of the Temporo-maxillary Articulation and its Relief by Excision of the Neck and Condyle of the Lower Jaw. The paper reported four successful cases, of which one was bilateral, and photographs of these cases were shown by the limelight. The etiology and the effects of the condition were considered, the anatomy of the parts about the joint was fully described, and the details were given of the operation as Mr. Greig performed it. He recommended an incision, keeping the entire facial fibres and superficial temporal artery in front, and showed how the operation could be completed without the injury of any important structures. He advocated the use of the chisel to divide the bone at the condyle or, if necessary, at the coronoid process and claimed that by his incision the bone could be removed as low as the inferior dental foramen with no resulting facial paralysis.

LIVERPOOL MEDICAL INSTITUTION.—A meeting of this society was held on Oct. 19th, the President, Dr. Macfie Campbell, being in the chair.—Dr. R. Craig Dun read notes of a case of Acute Sacro-iliac Joint Disease with rupture of an abscess into the ureter or bladder. A month after the onset of acute joint symptoms pus suddenly appeared in large quantities in the urine, followed immediately by the abatement of symptoms. Pus continued to appear in the urine for two months, diminishing steadily; the joint symptoms also gradually disappeared. Eight months after the onset of disease the boy was in good health with normal urine.—The President doubted the explanation of the source of the pus; from the consideration of the temperature chart, where hyperpyrexia coincided with a

free discharge of pus, it was probable that the fever was not due to damming up of the pus and its relief by an opening into the ureter.—Mr. Frank T. Paul thought it was more probable that the abscess had opened into the bladder than into the ureter; he had met with such a condition in hip disease and in necrosis of the sacrum.—Dr. Abram read notes of a fatal case of Acute Staphylococcic Infection. Apart from the rarity of the condition he drew attention to the following points: in spite of the history of symptoms pointing to gastric ulcer of eight years' duration the stomach on post-mortem examination showed no signs of ulcer; further, after the initial collapse the temperature rose to 105·8° F. and spasmodic movements limited to the left side of the body were present, yet at the necropsy the brain and spinal cord were healthy. The question of the diagnosis of gastric ulcer was raised, for in this case the initial collapse was attributed to perforation of an ulcer and surgical interference was contemplated but for the obviously impending fatal issue.—Dr. Carter was of opinion that the great value of such a communication as that just made was that it must beget caution in the minds of all who heard it and repress dogmatism on doubtful matters. It was more important for the medical profession that incorrect diagnoses should be honestly reported than the brilliant and occasional successes of which they perhaps heard a little too much. On the question of the mortality from gastric ulcer he was inclined to believe, from the great number of recoveries in cases about the diagnosis of which there seemed to be no reasonable doubt owing to the presence of hæmatemesis in addition to all the other signs and symptoms of the disease, that it must be very low indeed.—Dr. T. R. Bradshaw agreed with Dr. Abram that the symptomatology of gastric ulcer required revision. Symptoms leading to the diagnosis of gastric ulcer were far more commonly met with in women than in men, but post-mortem records showed that gastric ulcer was rather more common in men. His own experience led him to believe that pyloric obstruction and other late effects of ulceration were also more common in men. He inferred that many cases diagnosed as ulcer were not cases of that disease.—Dr. Caton, Dr. Barr, Dr. Loewenthal, Mr. Holland, and Dr. Buchanan spoke.—Mr. Rushton Parker exhibited an Infant from whom he had removed a large Globular Lipoma from the Prolabium; the child had also double hare-lip.—Mr. Frank T. Paul thought the case was quite distinct from the usual forms of malformation of the lip and palate. In this case the arrest of development affected the naso-frontal process alone. The fissure was median and the end of the nasal septum was bifid, the inter-maxillary bone was absent, but was replaced by a globular dermoid resembling the dermoids met with in the median line of the palate and pharynx. He considered it a very rare and interesting deformity.—Dr. Caton read a short paper on a Visit to Nordrach.—A discussion followed in which the President, Professor Boyce, Dr. Carter, Dr. Grünbaum, Dr. Buchanan, Dr. Marshall, Dr. Bradshaw, and Dr. Barr took part.

OXFORD MEDICAL SOCIETY.—The first meeting of the session of this society was held on Oct. 20th at the Radcliffe Infirmary. The following are the officers:—President: Mr. H. P. Symonds. Vice-Presidents: Dr. Brooks and Surgeon-General Bradshaw, C.B. Secretary and trustee: Dr. Duigan. Council: Dr. Collier, Dr. Elsmore, Dr. Ramsden, Dr. Parker, Dr. E. Mallam, and Dr. Proudfoot. The secretary read the financial report, which showed a balance in hand of £20 15*s.* 1*d.*—Dr. Brooks exhibited a case of Chronic Osteitis in a child, aged 12 years, resulting in marked anterior curvature of both tibiæ, with elongation of the bones. There were no deformities of other bony parts and no evidence of rickets. The teeth, however, showed slight syphilitic characters, which was in favour of the specific origin of the bony lesions.—Dr. E. Mallam showed a case of Osteo-arthritis in a man, aged 70 years, with great deformity of the toes, the great toe being curved outwards so as to overlap the other toes.—A discussion on the subject of Rheumatoid Arthritis arose, with special reference to its etiology and its distinction from chronic rheumatic arthritis. A typical case of rheumatoid arthritis in its acute or subacute condition was exhibited in a young child aged seven years.—Dr. Mallam also showed a case which had been shown two years before as a case of Spastic Paralysis in a child aged 10 years. The second dentition showed characteristic specific lesions, and in view of the fact that there was defective intelligence associated with the spastic gait he regarded the condition as due to a surface hæmorrhage affecting both leg areas and portions of the frontal lobes.—Mr. Symonds showed a simple apparatus for reducing old Dislocations of the Shoulder-joint. It consisted of a long board, some three feet wide, with a large circular aperture in the centre. The board being placed on its edge against some firm support, such as the legs of a table, the patient was placed parallel with the board and the floor and his arm was thrust through the opening. In this position he could be safely anæsthetised and by steady traction on the arm through the opening in the board reduction could often be effected without any danger of injury to the axillary vessels and nerves.—Mr. Farmer showed a case of Excision of the Ankle-joint where by an external incision he had been able to remove the astragalus and os calcis, together with the lower ends of the tibia and the fibula.—A remarkable case of Diffused Veno-capillary Nævus in a boy was exhibited, the parts chiefly affected being the right arm and shoulder; the left shoulder, the thighs, and the abdomen were affected to a less degree. Excision and electrolysis were proposed as methods of treatment.

WINDSOR AND DISTRICT MEDICAL SOCIETY.—The first of the proposed six winter monthly meetings of the above society was held at the Guildhall, Windsor, on Oct. 18th. The President, Mr. W. B. Holderness, occupied the chair, and about 30 members attended the meeting, which passed off very successfully. The following specimens, &c., were exhibited:—The President: Typhoid Bacilli.—Dr. C. R. Elgood: Stained Specimens of Normal Blood.—Dr. J. H. Waters: (1) Splenic Leucocythæmia; (2) Malarial Crescents; (3) Malaria—Brain; (4) Leprosy—Skin; (5) Filaria—Lung; and (6) Cholera (Koch).—Mr. R. S. Miller: (1) Recent Amber Lens; (2) Calcified Lens; (3) Ossicles from the Ears of a Child at full term; (4) Salivary Calculus; (5) Concretions, probably from the Fallopian tube; and (6) Epithelioma of the Anus (section).—Mr. W. S. Dibbs: A Series of Photographs illustrating various medical and surgical subjects.—The following patients were shown:—Mr. E. Weaver Adams: Lymph Varix of the Scrotum in a Boy.—Mr. R. S. Miller: (1) A case of Severe Wound in the Ciliary Region of the Eye in a boy with aphakia, destruction of iris, but resulting good vision; and (2) a man, aged about 70 years, after Removal of Cataracts from the Eyes six and 11 years ago respectively.—Dr. A. Gordon Paterson: A case of Lichen Planus of 12 months' duration.—Mr. W. B. Holderness delivered his Presidential Address.—Dr. A. J. Anderson read a paper on the Artificial Feeding of Infants (with diagrams) and an animated discussion ensued, in which the Pfesident and Mr. Bruce Porter, Mr. J. Brickwell, and Mr. Seymour Pembrey took part.—Dr. Anderson replied.—A paper entitled "Notes of a Case of Splenic Leuksæmia" (illustrated by a blood-slide) was read by Dr. A. Gordon Paterson, and remarks were made upon it by the President and by Mr. J. Brickwell.—A unanimous vote of thanks (moved by Mr. Arnold Thomson and seconded by Mr. J. Startin) to the President for his interesting address ended the business of the meeting.—A considerable number of members subsequently dined together at the Castle Hotel, Windsor, where a very pleasant evening was spent.

BIRKENHEAD MEDICAL SOCIETY.—The first monthly meeting of the session of this society was held on Oct. 13th, Mr. H. N. Harrington, President, being in the chair.—The President gave his inaugural address entitled, Notes on the Association of Medicine and Art. He first gave some particulars about artists who had been members of the profession or who had been intended and partly trained for it:—Theodore Van Kessel, the great landscape painter Ruysdael, Sir Joshua Reynolds, Peter de Wint, Edmund Dorrell (an early member of the Royal Water-colour Society), our great poetical artist George Mason (the painter of "The Harvest Moon"), and F. D. Millet (the American *genre* painter). He then drew attention to the humble connexion with medicine of John Crome of Norwich and Paul Chalmers, the Scotch painter, next speaking at some length of the great and brilliant etcher Sir F. Seymour Haden and the influence of his scientific training upon his work. Amongst other medical amateur artists he referred to the Munro family; Sir Charles Bell, the surgeon; Sir Rutherford Alcock, an able sculptor; Sir Prescott Hewett, Dr. Arthur Evershed, Dr. Lumsden Propert, and Sir Henry Thompson, mentioning the great influence upon art criticism of the Italian surgeon G. Morelli, and speaking

most highly of the extensive knowledge of anatomy and physiology of the great painter Leonardo da Vinci and how he to some degree anticipated Harvey's great discovery of the circulation of the blood. The President expressed the opinion that a knowledge of drawing, and especially the practice of drawing from the living model, would be of direct service to the medical student in his professional work, for it would teach him not only "to see" but how "to observe."—Dr. Marsden, Dr. Owen Morris, Mr. Butcher, Dr. Herbert Dixon, and Mr. Wilkinson made remarks on the subject and a hearty vote of thanks was given to the President for his paper.

ÆSCULAPIAN SOCIETY OF LONDON.—A meeting of this society was held on Oct. 20th, the President, Mr. A. W. Galloway, being in the chair.—Dr. B. G. Morison read notes of a case of Recurrent Appendicitis in a young man who in a few months had several attacks with but slight pyrexia. The pain was iliac in position and per rectum there was a hard swelling right and left of the rectum, while pressure to the right gave pain in the left hypogastric area. Three days later there was erythema on the feet and knees, while next day synovitis of the knee developed, all of which symptoms declined gradually after three days. Four weeks later Mr. Watson Cheyne removed the appendix, which was adherent to the cæcum and ileum, much thickened, and having a small perforation, at which point was a small amount of pus. The recovery was uneventful.—Dr. Leslie Durno showed a seven months' Monster.—Mr. W. Campbell M'Donnell showed a skiagram from a case of Fracture of the Olecranon, in which forearm extension was repeated after the injury by the patient and so presumably negativing olecranon fracture which nevertheless was present.

READING PATHOLOGICAL SOCIETY.—The annual meeting of this society was held in the library of the Royal Berkshire Hospital on Oct. 19th, when there was a good attendance of members and visitors to hear the Oration on Acidity delivered by Dr. J. F. Goodhart of London. The subject was treated entirely from a clinical standpoint and the speaker pointed out that although from a theoretical point of view it would seem that chemistry should be able to explain the occurrence of uric acid in the system and output, the inherent properties of living tissue so upset our calculations that he believed it was impossible to say what caused acidity. Dr. Goodhart condemned stereotyped treatment, including printed diet sheets, and urged the importance of individual treatment and of giving more freedom to nature. —A vote of thanks to Dr. Goodhart was proposed by the President, Dr. Phillips-Conn, and seconded by Mr. H. R. Hayes, for an address which was greatly appreciated.—The members and their visitors to the number of 38 afterwards dined together.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.—The following are the officers of the society for the session 1899-1900:—President: Dr. Duncan Burgess. Vice-Presidents: Dr. Young and Dr. Kay. Members to complete Council: Mr. Leach, Mr. Reckless, Dr. Porter, Dr. Sinclair White, Dr. J. H. Brown, Mr. H. Lockwood, Dr. Willey, Dr. Thomson (Retford), Mr. Shea (Chesterfield), and Dr. Alfred Robinson (Rotherham). Treasurer: Mr. Snell. Librarian: Dr. Addison. Secretary: Dr. Cocking. The first meeting of the society was held on Oct. 19th, when the President, Dr. Burgess, delivered his inaugural address entitled, "Some Recollections of Medical Cases."

WIGAN MEDICAL SOCIETY.—An ordinary meeting of this society was held on Oct. 19th, Mr. Luther Cooke, President, being in the chair. There was a good attendance of members.—A vote of condolence was passed to the family of the late Mr. J. B. Stuart, J.P., a former President of the society and one of its original members.—The President then delivered his address on Medical Politics, which was attentively listened to, and he was accorded a hearty vote of thanks for his excellent address.—Dr. F. H. Barendt read a paper on Dermato-Therapeutics.—A discussion followed and a cordial vote of thanks was voted to Dr. Barendt for his interesting paper.

CORONERS' DISTRICTS IN LINCOLNSHIRE.—By an Order in Council recently gazetted, from and after Dec. 31st next the county of Lincoln will be divided into 12 districts for coroners' inquisitions.

Reviews and Notices of Books.

A Text-Book of Pathology. By ALFRED STENGEL, M.D., Instructor in Clinical Medicine in the University of Pennsylvania; Physician to the Philadelphia Hospital, &c. London: The Rebman Publishing Company. 1899. Pp. 848. With 372 Illustrations. Price 22*s.* 6*d.*

THIS volume is intended to present the subject of pathology in as practical a form as possible and more especially from the point of view of the "clinical pathologist." These objects have been faithfully carried out and a valuable text-book is the result. An enormous amount of information is conveyed without any undue controversial matter being introduced, so that the reader is not confused with a multiplicity of views and opinions of numerous observers. This fault is very common in many of the more modern publications and it is a pleasure to find a work so plainly written. The book is divided into two parts, the first dealing with General Pathology and the second with Special Pathology.

The general arrangement of the chapters is all that can be desired; the plentiful use of heavy type rendering reference to the sub-sections easy. Three important subdivisions are generally recognised—namely, etiology, morbid or pathological anatomy, and morbid or pathological physiology; in the latter group is included pathological chemistry.

The first chapter of Part I. is concerned with the Etiology of Disease and some interesting remarks are made on traumatism, heat, cold, atmospheric pressure, poisons, and bacteria.

In the second chapter we find a discussion on Disorders of Nutrition and Metabolism, especially noteworthy being the observations on the pathogenesis of glycosuria and diabetes. It is admitted that although the metabolic disturbances which occur are obscure yet the essential fact is the inability of the body to consume carbo-hydrates for the production of energy.

Much interesting reading will be found in the chapter on Disturbances of the Circulation of the Blood, whilst the student will find in the chapter on Retrogressive Processes a lucid explanation of the various forms of "degenerations" which are wont to prove so confusing at the outset of his pathological studies.

The other chapters in Part I. deal with Inflammation and Regeneration, Progressive Tissue-changes, Bacteria and Diseases due to Bacteria, and Animal Parasites and Diseases caused by them.

Turning to Part II., Special Pathology, we find that the classification is essentially clinical, the various "systems" being separately considered.

The first chapter is taken up with a consideration of Diseases of the Blood. Our knowledge of blood conditions is constantly advancing, but Dr. Stengel's account is well up to date, although some of his conclusions are open to doubt; these exceptions, however, chiefly relate to minor matters. For instance, we do not think it is generally accepted that the "dust corpuscles" are fragments of red corpuscles. The theory more recently advanced, that they are the granules extruded from the leucocytes, is more probably correct. The illustrations in this chapter are particularly good.

The second chapter deals with conditions not so well known—namely, disorders of the spleen, lymphatic glands, bone-marrow, and thymus gland; but the descriptions include most of the more recent investigations.

In the third chapter we find an excellent account of the Pathology of the Diseases of the Circulatory System. We doubt the wisdom of including the two recognised

forms of acute endocarditis under one head. There is certainly truth in the author's observation: "The cases vary in anatomical appearance and in malignancy, but there is no essential difference and no sharp dividing line," but our knowledge is at present not sufficiently precise to adopt this classification. The section on Hypertrophy and Dilatation of the Heart is scarcely up to the general standard of the work; much more might advantageously have been said in regard to cardiac dilatation.

The chapter on Diseases of the Respiratory Tract also gives evidence of a great deal of thought and sound work. The classification of the various forms of pneumonia into "fibrinous," "catarrhal or broncho-pneumonia," "purulent," "cheesy," and fibrous varieties is a useful one, and the author has done well not to separate "fibrinous" or "croupous" pneumonia from the others entirely, as some observers have suggested; but it is duly pointed out that it is "an acute infectious form ..... generally caused by the diplococcus pneumoniæ." This is quite in accordance with modern pathology.

The classification adopted for the varieties of pulmonary tuberculosis is not the one followed by most authors, but it is one to be commended as being based on the principle of the method of infection. Thus the three main divisions are named respectively bronchogenic, hæmatogenic, and lymphogenic tuberculosis, according as to whether the course of infection is along the bronchi, the blood-vessels, or the lymph channels. The alternative name of "pneumonic tuberculosis" for "bronchogenic tuberculosis" is apt to lead to confusion owing to the classification to be found in other works. This form is subdivided into the acute, or "acute caseous phthisis," or "galloping consumption"; the chronic, or "chronic ulcerative phthisis"; and the form in which fibrous overgrowth predominates—"fibrous," or "fibroid phthisis"; but it is wisely pointed out that "while typical instances of these forms are quite distinct there is no sharp dividing line separating the groups, and individual forms merge insensibly one into the other." It is owing to the frequency of these mixed forms that an attempt at any definite classification is so unsatisfactory.

Under the heading of Diseases of the Gastro-Intestinal Tract are included not only affections of the stomach and intestine, but also disorders of the liver, gall-bladder, pancreas, and peritoneum. The descriptions throughout are again devoted rather to the clinical than to the strictly pathological side and in this respect the whole volume marks a welcome departure from the majority of works on "pathology," in which the clinical side seems to be almost lost sight of.

The chapters on Diseases of the Ductless Glands, Diseases of the Urinary Organs, and Diseases of the Reproductive Organs are well written, the information being brought fully up to the standard required by recent investigations.

The chapter on Diseases of the Bones is also good, the inflammatory processes and their consequences particularly deserving notice, and the same may be said with regard to the chapter on Diseases of the Joints.

Disorders of the Nervous System are very fully dealt with, the diseases of the Brain and its Membranes, those of the Spinal Cord and its Membranes, and those of the Peripheral Nervous System being respectively described in different chapters.

Taking the book as a whole we can most favourably recommend it to our readers, not so much as an exhaustive treatise on pathology as is usually understood, but as a thoroughly practical work on "clinical pathology." The illustrations are beautifully reproduced although most of them are borrowed from other publications, but they are none the less valuable on that account.

Transactions of the Jenner Institute of Preventive Medicine (late British Institute of Preventive Medicine). Second Series. Illustrated. London: Macmillan and Co. 1899. Pp. 253. Price 6s. net.

THIS volume embodies the results of the research work carried on at the Institute since the publication of the first series of Transactions some two years ago, and its appearance bears testimony to the successful efforts of the Council to provide for the study of branches of bacteriology which have hitherto been much neglected in this country. The book opens with an Introduction describing the very complete accommodation provided for carrying out the objects of the Institute. There are three large laboratories, one devoted to general bacteriology, one to chemistry, and one to the study of the practical application of bacteriology to various industrial and technical purposes. A number of private research rooms have also been fitted up and provision has been made for the manufacture on a large scale of tuberculin, mallein, and similar products. The establishment for the preparation of antitoxic serums remains at Sudbury. The magnificent liberality of Lord Iveagh has removed any difficulties of a financial nature which may hitherto have hampered the efforts of the Council and further additions to the buildings have already been planned. It will be seen that the Council have decided that their laboratories shall be devoted to bacteriological research in the widest sense of the term, and in so deciding the authorities have, we think, acted wisely. The large London hospitals, with their well-equipped bacteriological laboratories and unlimited supply of pathological material, afford opportunities for the investigation of the bacteriology of disease which will not be rivalled in the new Institute, but at the same time a splendid field for research is open to the staff of the Institute so far as all matters which pertain to the preparation and investigation of antitoxic serums are concerned, and in connexion with the manifold applications of bacteriology to industrial processes such as brewing and agriculture. The importance of bacteriological research in such matters is well brought out in a paper by Dr. Harris Morris on the Technical Applications of Bacteriology. The only paper included in the Transactions which is not contributed by a worker in the Institute is an able exposition by Professor Ehrlich himself of his views as to the constitution of the diphtheria toxin. Professor Ehrlich may be looked upon as the champion of the chemical theories by which, as opposed to the vital theories of Roux and others, it is sought to explain the phenomena of immunity. An authoritative statement of his views must necessarily prove of the utmost interest to bacteriologists. Another paper dealing with the same question is a valuable Contribution to the Study of Diphtheria Toxin, by Dr. W. Bulloch. Papers which contain evidence of original work in special directions are those on Photogenic Bacteria, by Mr. J. E. Barnard; on the Fermentation of Sugars by Bacillus Coli Communis and Allied Organisms, by Mr. A. Harden, and Observations upon the Structure of Bacteria, by Mr. S. Rowland. Mr. Barnard's paper is a concise monograph on an interesting class of bacteria which has not received much attention in detail; a new species of "phosphorescing" bacillus is carefully described, and the work done will be of the greatest assistance to others who may in the future follow the same line of work. Mr. Harden has investigated thoroughly the influence of the medium in which the bacillus is grown on the production of optically active and inactive lactic acids; his results so far agree in the main with those obtained by Péré, but they have a very distinct value of their own. It is shown that the gas produced in the decomposition of nutrient gelatin is not, as stated by Dr. Klein, marsh gas, but a mixture of carbonic acid and hydrogen. Mr. S. Rowland gives the results of a painstaking research on the structure of bacteria, and he has been

able to add considerably to our scanty stock of knowledge on this point; further investigations in the same direction are in progress and will form the subject of another paper. Dr. Hewlett's contributions include a short paper on Bacillus Enteritidis Sporogenes, in which the conclusion is come to that the organism is an inhabitant of the normal digestive tract and consequently does not possess the pathogenic properties attributed to it by Dr. Klein and Dr. Andrewes. Another paper by the same author deals with the diagnostic value of Neisser's stain for the diphtheria bacillus. Dr. Hewlett has found that this stain will often afford a means of rapid diagnosis, but that if a negative result is obtained recourse must be had to culture methods. Dr. A. Salter has carried out a series of experiments with the view of determining the relations, if any, which exist between the true and pseudo-diphtheria bacilli. It was found that the virulence of the latter could be considerably exalted by passage through small birds and that it might so be made actively virulent for the guinea-pig. No absolute conclusion was arrived at, but Dr. Salter considers that his results "speak very strongly in favour of the racial identity of the two organisms." Dr. A. Macfadyen and Dr. F. R. Blaxall in an interesting paper on Thermophilic Bacteria deal with certain organisms which they have isolated, the optimum temperature for the growth of which is between 55° C. and 65° C., or even higher. Dr. George Dean describes very carefully a streptothrix organism isolated from the horse, and deals fully with the literature bearing on the subject. Mr. Arnold Lawson has made a number of observations on the bacteriology of the conjunctival sac, and he applies his results to the consideration of the utility of antiseptics in ophthalmic surgery. A short paper, the substance of which has already appeared elsewhere, on the Pathology of Cancer, by Dr. H. L. Lack, a note by Mr. Harden on a point in the Chemistry of Formaldehyde, a *résumé* by Dr. Macfadyen of the work done by Professor Calmette and others in connexion with the Biology of Fermentation, a description of some Coli-like Organisms isolated from water by Mr. J. Lunt (we must, by the way, strenuously protest against the use of such a barbarism, etiologically considered, as "coli-like"), together with a few pages of laboratory notes and descriptions of instruments, complete a volume of Transactions which is highly creditable to all concerned in its production.

Extra-uterine Pregnancy: a Clinical and Operative Study. By JOHN W. TAYLOR, F.R.C.S. Eng. With 65 Illustrations and Diagrams, mostly original. London: H. K. Lewis. 1899. 8vo, pp. 205. Price 7*s.* 6*d.*

WE are glad to see that Mr. Taylor has published his Ingleby Lectures for 1898 upon Extra-uterine Pregnancy as a book. It contains a large number of accurate clinical observations and is one of the best and most complete accounts of the subject which has appeared of recent years. The author has contributed many important facts to our knowledge of this condition and his views may therefore be regarded as those of an authority. In considering the causation of ectopic gestation Mr. Taylor rightly, we think, disagrees with Dr. Clarence Webster's description of the changes observed by him in the tube as being of a decidual nature. Four main varieties of ectopic pregnancy are recognised in the classification adopted—viz., tubal, tubo-abdominal, tubo-ligamentary, and tubo-uterine. The reasons for regarding early rupture of a gravid tube of from two to five or six weeks' standing as due to congenital or acquired atrophy of the tube are given and there seems no doubt but that this is an important factor in the causation of such early ruptures. The description of tubal mole and tubal hæmatocele is particularly good, and the frequency of hæmorrhage from an unruptured tube as compared with that from a ruptured one is well shown by the statistics of Mr. Taylor and Dr. Cullingworth. Adding them together we find 46 cases of pelvic hæmatocele, of which 37 were due to hæmorrhage from an unruptured tube and only eight to hæmorrhage from a ruptured one. The facts brought forward in the chapter upon Tubo-abdominal Pregnancy certainly seem to point to the possibility of such a variety occurring and Mr. Taylor's own cases and those collected by him appear to prove his contention. The extreme importance of the relation of the placenta to the tube and the important point that the connexion between them is rarely entirely destroyed or lost are strongly insisted upon. This is a clinical fact of great value with regard to the operative treatment of such cases.

The two varieties of advanced tubo-ligamentary gestation—viz., the anterior sub-peritoneo-pelvic or sub-peritoneo-abdominal, and the posterior or retro-peritoneal, are clearly described. The possibility of a tubo-ligamentary gestation being almost pedunculated and, therefore, easily removed entire is pointed out. Mr. Taylor is of opinion that there are two separate varieties of tubo-uterine gestation, the one primary, long recognised as the interstitial form, and the other secondary and due to later invasion of the uterus from the tube.

The chapter upon Diagnosis is a very helpful one, and the cases recorded are happily illustrated by outline diagrams. These diagrams are, indeed, a feature of the book and although without any pretensions to artistic merit yet well fulfil their purpose.

In considering the operative treatment of ectopic gestation the author makes a statement which we cannot allow to pass uncriticised. He says on page 150 that "if five patients may possibly weather the storm by months of rest 95 patients will die if surgical aid is withheld." Upon carefully reading the context the statement is seen to apply to all varieties of tubal pregnancy. How does Mr. Taylor account for the fact that before the days when operations were performed for such a condition large numbers of patients suffering from pelvic hæmatocele got perfectly well. We well remember the time, not many years ago, when pelvic hæmatocele was regarded as a distinct disease and treated mainly by rest in bed. If the mortality of cases untreated by operation is as great as Mr. Taylor makes out how is it that so few of these patients died? Looking up old statistics we find that Dr. West collected 55 cases treated by expectant methods, of which 43 recovered and only 12 died; this hardly corresponds to a death-rate of 95 per cent. in cases unoperated upon. Yet Mr. Taylor would be the first to admit that the great majority of these cases must have been due to tubal gestation, since he says on page 33 "intra-peritoneal hæmatocele is almost always caused by tubal pregnancy." If his statement applies only to cases of rupture of a gravid tube no doubt it is fairly correct, but if it applies, as it certainly appears to, to all cases of ectopic gestation, then the risk appears to be greatly exaggerated. Cases of ovarian gestation are considered as not proven and the recommendation to remove both sets of appendages for fear of the occurrence of a second extra-uterine gestation is rightly disapproved of. Full tables are appended of the 42 cases operated upon by the author.

The book is one of great value and we strongly commend its perusal to those interested in this important subject.

LIBRARY TABLE.

Practical Diagnosis: the Use of Symptoms in the Diagnosis of Disease. By HOBART AMORY HARE, M.D., B.Sc., Professor of Therapeutics in the Jefferson Medical College of Philadelphia, &c. Fourth edition. Illustrated with 205 Engravings and 14 Coloured Plates. London: Henry Kimpton. 1899. Pp. 631.—In THE LANCET of Jan. 21st of this year we commented favourably on the third edition of this work and therefore it is not necessary for us to again

explain the scope and nature of the book. As the author explains in his preface, the present edition naturally cannot differ greatly in its text from its predecessor, but instead of putting the work to press without any changes he has seized the opportunity to insert additional illustrations and a coloured plate and has altered and added to the text wherever he thought that such additions would be advantageous. We still think that some further alterations are needed in the chapter referring to examination of the lungs; if the student were to follow Dr. Hare's instructions only he would probably fall into error. An assemblage of signs and progression of symptoms is not sufficiently insisted on. We believe that wrong diagnoses as regards the absence or presence of pulmonary tuberculosis lie more in commission than omission—that is to say, that certain physical signs are taken for those of disease when the lungs are perfectly healthy, owing to a want of appreciation of the variations in the breath sounds over various parts of the thorax. Taking the book on the whole, however, it is a most valuable one and would form a good addition to a practitioner's library.

Constipation and its Modern Treatment. By GEORGE HERSCHELL, M.D. Lond. Second edition. London: Henry J. Glaisher. 1899. Pp. 91. Price 2*s.* 6*d.*—The title of this little book is rather misleading, for (as the author admits in his preface) it does not profess to be an exhaustive treatise upon the subject of constipation, but merely contains a description of certain methods of diagnosis and treatment. A perusal of it, however, will give much information as regards the management of obstinate cases of constipation—those in which drug treatment has been tried in vain. The usual therapeutical measures are not more than mentioned, whereas certain mechanical methods are described in full. The most satisfactory way of administering enemata, for instance, is minutely given and practitioners would do well to give more particular instructions, on the lines laid down by Dr. Herschell, to their patients and nurses when this procedure is necessary, for the ordinary manner in which an enema is given is often productive of very little result. The author is of opinion that ordinary massage has been much over-rated as an agent in the treatment of atony of the intestines, as it has disadvantages which should prevent its routine use in every-day practice; on the other hand, he speaks in high terms of the use of "vibration" as a therapeutic agent. This treatment, however, would probably be required only in very exceptional cases.

Anatomischer Atlas der Geburtshilflichen Diagnostik und Therapie (*Anatomical Atlas of Obstetrical Diagnosis and Treatment*). By Dr. OSCAR SCHAEFFER. With 160 Plates, many coloured, and numerous Illustrations in the text. Second edition. Crown 8vo. Munich: J. F. Lehmann. 1899. Pp. 318. Price 12 marks.—*Atlas und Grundriss der Gynäkologie* (*Atlas and Essentials of Gynæcology*). By Dr. OSCAR SCHAEFFER. With 207 Plates, many coloured, and 62 Illustrations in the text. Second edition. Crown 8vo. Munich: J. F. Lehmann. 1899. Pp. 262. Price 14 marks.—The fact that a second edition of these two books has appeared after an interval of but two years seems to show that they have met a demand in their own country. Both of them have been considerably enlarged and many new plates and illustrations have been added. As we said in noticing the English translation of the first edition, an attempt is made to combine a text-book and an atlas and the result to our mind is not a great success. Some of the new figures are of considerable merit, but they show a want of accuracy which shakes our faith in them not a little as faithful representations of the conditions which they are supposed to illustrate. One of the most striking examples of this inaccuracy is seen in the preposterous anatomical figure intended to represent the measurement of the external conjugate by means of callipers. Many of the plates, however, are of interest and have a certain value as representing original clinical or post-mortem specimens. The letterpress suffers from too much condensation and the constant interpolation of descriptions of the illustrations is very annoying to the eye. We feel that it is extremely improbable that the second edition, should it be translated, will make any greater appeal to the English student than we imagine the first edition has done.

New Inventions.

STERILISED OPHTHALMIC DRESSINGS.

BY the aid of a portable steriliser it is an easy matter in private practice to render aseptic the various instruments required for an ophthalmic operation; but to be thorough the sponges used for removing blood, lens matter, &c., and the pads of Gamgee tissue applied as a dressing should equally be placed beyond suspicion, and this is less simply brought about. The following method will, I think, be found to answer the purpose, besides being a great saving of time and trouble. I am well satisfied with the manner in which Messrs. Ferris and Co. of Bristol have carried out my instructions. A number of circular pads of absorbent tissue are cut and placed in a tin, each pad being separated from its fellow by a leaf of paper. To these is added a tray containing "swabs" or sponges made of small rolls of lint, the whole being then placed in a suitable steam steriliser. Here a pressure of 20 lb. to the square inch and a temperature of from 120° C. to 130° C. are produced and maintained for a sufficient time to ensure absolute sterilisation. The tins are then removed and hermetically sealed. The form of tin employed is similar to that used by Messrs. Wills and Co. for putting up tobacco and cigarettes and is opened in a like manner by a cutter in the cover. Each tin contains 20 pads and a sufficient number of swabs for an operation. By this means the surgeon procures his dressings ready cut, sterilised, and packed—a great convenience in emergency operations—the pads retain their shape and do not adhere to one another, and each can be removed singly without touching the remainder. The price of the tins is 18*s.* per dozen and the makers are Messrs. Ferris and Co. of Bristol, from whom they can be obtained.

K. C. CHETWOOD-AIKEN,
Truro. Ophthalmic Surgeon to the Royal Cornwall Infirmary.

A MODIFIED NASAL SPECULUM.

THE Duplay nasal speculum has two disadvantages. It is difficult to clean thoroughly and occasionally it is apt to be in the way during an operation. Thus, in the removal of certain varieties of polypi, after the speculum has been used to facilitate the application of the snare it would be an undoubted advantage if during the actual operation it could be removed from the nose. To permit of this I have had it modified by the addition of a couple of small screws, so that it can be readily separated into halves and freed from the snare at the will of the user. After a fair experience I am satisfied that the modification is an improvement on the ordinary instrument. It has been made for me by Messrs. Young and Son of Forrest-road, Edinburgh.

Edinburgh. G. HUNTER MACKENZIE, M.D. Edin.

DRAINAGE OF TRURO.—At the meeting of the Sanitary Committee of the Cornwall County Council held on Oct. 20th it was reported that the Local Government Board had written stating that they proposed to hold an inquiry at Truro on the complaint that the local authority had been neglectful of the drainage.

ROYAL HUMANE SOCIETY'S AWARDS.—Among the awards recently made by the Royal Humane Society was a testimonial to Alfred Mitchell of Polruan (Cornwall) for rescuing Mr. Frederick King Green, surgeon to the Royal United Hospital, Bath, who, while bathing at Polruan on July 8th, found himself unable to regain the shore.

THE LANCET.

LONDON: SATURDAY, OCTOBER 28, 1899.

THE Guild of St. Luke, an association which consists of medical men, "being communicants of the English branch of the Catholic Church," and which among other objects provides for the support of medical missionaries, organises a yearly service held on the Feast of St. Luke or within the octave in St. Paul's Cathedral. This year the service was held on Oct. 19th and was rendered doubly impressive by being almost coincident with an event which must have emphasised for all men the happy combination of the medical and missionary callings—the lamented death of the Right Rev. JOHN WALE HICKS, M.D., F.R.C.P. Lond., the Bishop of Bloemfontein.

It was altogether appropriate that the Bishop of Stepney in preaching before the Guild of St. Luke should conclude his sermon by a reference to this distinguished man, who was not more distinguished in the Church than he was in medicine and who was in every sense a worthy representative of St. Luke, "the beloved physician." His career of graduation in the London University was one of distinction from beginning to end, showing exceptional knowledge in the fundamental sciences of medicine, as well as in its practical branches. Thus, after achieving much success in medicine as a London graduate, as though one university and one profession could not satisfy so broad a mind, he went to Cambridge and distinguished himself in mathematics and in natural science, and finally in theology. The Church was fortunate enough to determine the final form of his labours and his life—a life which down to the last was characterised by apostolic zeal for the welfare of men in respect alike of their physical and spiritual wants, whether living in Cambridge and debating new questions in theology or among natives of Basutoland perplexed with the first problems of civilisation and Christianity. The University of Edinburgh, too, can boast among its honoured medical graduates a man of the same spirit in the Anglican Bishop of Rangoon—JOHN MILLER STRACHAN. In his case the study of theology preceded that of medicine. He was originally a Wesleyan preacher. Afterwards, in 1860, he went out to India in connexion with the Society for the Propagation of the Gospel; he was ordained in Madras as deacon in 1861, and as Priest in 1862. In 1867 he took furlough, and in the way of recreation, and following up studies which he had begun years before, he graduated in medicine and became gold medallist in doing so. He was stationed for many years in India, in the Madras Presidency, and his medical work amongst the natives during the famine of 1870 was highly appreciated. In 1872 the number of patients treated in connexion with his station was 40,000. Gradually his energies became engaged in more ecclesiastical ways, and finally, in 1882, he was consecrated in Lambeth Palace as Bishop of Rangoon. But even there he has been "the beloved physician" as well as the Bishop, and it has been his habit to see patients twice a week at a dispensary which he founded for the natives. There is yet a third Doctor of Medicine among the Missionary Bishops of the English Church—JOHN EDWARD HINE of Likoma, Lake Nyassa—who is B.A. of the University of Oxford and M.D. of the University of London. He was made Bishop in 1896. The Anglican communion is to be congratulated on having amongst her prelates men of such ability and of such devotion, and it is well on such occasions as that of St. Luke's Day to remember them with gratitude, as living proofs that the study of medicine is not inconsistent with the greatest saintliness of character and the greatest heroism of life, as well as with the greatest vigour of intellect. It is pleasant, too, to remember that in all communions there are men who have displayed the same spirit and the same appreciation of the two professions and placed both of them at the service of mankind. The mention of Lake Nyassa recalls the name of LIVINGSTONE, who began his immortal and fruitful work in Africa in connexion with the London Missionary Society and who was also a member of the medical profession. Such men, in whatever denomination they are found, are worthy followers of St. LUKE, and are a constant rebuke to those who doubt the reverence of the medical profession.

Of St. LUKE himself we know too little, but what we do know of him entitles him to our great respect. He was a man to be followed. We owe to him one of the most beautiful of the Gospels, in which all tenderness of human feeling combined with every reverence for Divine power stand out conspicuously. His Gospel is distinguished among the others for some of the rarest gems in the form of parables—notably that of the Good Samaritan—which gives the catholic note to all religious service and obligation and bids us find our "neighbour" in any fellow-creature who needs our help. We owe to him also the Acts of the Apostles, the first and greatest piece of Church history. He was the constant companion of the Apostle PAUL, and it is probable, humanly speaking, that to him we owe much of PAUL'S work, in the sense that we owe POPE'S to ARBUTHNOT or COWPER'S to HEBERDEN. The Guild of St. Luke has chosen its patron well; and every practitioner who ministers to the humblest patient in the same spirit and with the same faith and purpose is in a way a successor of St. LUKE, with whatever form of religion he may be associated. The future success of the Guild will depend on the breadth of its catholicity and the degree in which it can make medical men of all Christian creeds recognise their common relation to one Lord.

IT is an interesting and not an idle speculation how far a "little learning" when exercised in the sphere of domestic medicine is the "dangerous thing" that a common saying declares such knowledge to be. Is that household more to be approved of in which the least suspicion of illness heralds a peremptory summons for the medical attendant or that in which it marks the opportunity for the exercise of the art of medicine as acquired at random by the daughter

of the house? In the matter of medicine, is a complete ignorance which prefers to place itself at once under the direction of what it knows to be safe guidance better than a little knowledge which may sometimes render such guidance unnecessary, but may on the other hand sometimes allow illness to reach a dangerous degree before it recognises the necessity of medical intervention? The answer to our question depends largely upon the amount of common sense and intelligence with which a little medical knowledge is leavened. A little knowledge too often accompanies a large presumption, and when this pair of qualities is brought to bear upon a case of illness the chief elements of danger are combined. But when with a little medical knowledge, such, for instance, as may be obtained through the St. John Ambulance Association lectures, there are fair common sense and intelligence, then there will be little risk that a really serious illness will be allowed to proceed under the impression that there is only a trifling indisposition. And, on the other hand, trifling indispositions will be safely passed through under domestic treatment only, neither the patient's purse nor the medical man's leisure being needlessly invaded. There are, of course, cases in which only a high degree of medical knowledge, and not always even that, can discern the serious significance of what appears to be a trifling amount of illness; but these are happily rare and as a general rule the person of sense endowed with a little medical knowledge may safely undertake the initial care of slight illnesses, intelligently realising that if convalescence is not quickly begun the case is one which he must hasten to place in medical hands. The little medical knowledge to be of value domestically must, of course, be in the right direction. Medical knowledge is a wide term and in many branches of it a slight acquaintance could not possibly be of service. No family will be in any way the gainer because one of the daughters knows the pathology of the mucous membranes when there is a cold in the head, nor will its members reap much benefit because she has drawn pictures of the bacillus tuberculosis as seen under a microscope. But if her little medical knowledge has been gained in the direction of general matters conducive to hygiene, if she is able to point out that her brother with a cold had better stay in a uniform temperature and that her tuberculous sister's handkerchief cannot be left lying about without danger, then she is an element of safety in the house and an assistance to the medical practitioner for whose presence she is able to recognise the necessity. Here we touch on a matter in which a little medical knowledge becomes domestically of the very highest service. In that very large class of households the inmates of which are not proper subjects for hospital treatment, and yet lack the means to pay a nurse's fees without finding them a heavy tax, the presence in the home of a mother or a daughter who can intelligently coöperate with the family medical attendant is an inestimable advantage both to him and to his patient. It may be replied that any woman of sense can help in this way, but she will certainly do so more readily and more effectively if she has the advantage of a little general medical knowledge. The importance of domestic medical knowledge, in fact, depends largely upon the class of household. With the rich, whose houses and general conditions are probably conducive to hygiene, and for whom medical and nursing aid is readily available, the matter has not the importance which it assumes in the smaller houses of the clerk, for instance, and of the workingman.

We are led to these considerations by a paper on "The Importance of Teaching Domestic Science as an Aid Towards the Improvement of the Public Health," read by Dr. ROGER MCNEILL at the Congress of Public Health at Blackpool. The subject is one of interest and importance, not only to medical officers of health, but to medical men of all kinds and especially to general practitioners, and we may profitably consider some of the questions suggested by Dr. MCNEILL'S paper. In the first place we are struck by the very wide limits within which he includes the domain of domestic science. The number of subjects upon which the medical officer of health wishes all women, or at least all wives and mothers, to be enlightened under the name of "domestic science" is so large and their importance so real that the practical exercise of this knowledge ought surely to be shared largely, in a manner not perhaps sufficiently suggested by Dr. MCNEILL, by the men of a household too, by husbands if not by sons as well. We are quite content to leave the "theory and practice of cooking, laundry-work, dressmaking, and housewifery" upon the shoulders of women, but we would recommend a little chivalrous intervention on the part of their husbands and brothers when it comes to "efficient lighting and ventilation, the proper disposal of all waste matter, and the flushing of pipes and drains in connexion with the dwelling." The domestically scientific woman who reached the high standard sketched for her by Dr. MCNEILL would, we are afraid, have very little time for anything else. The advantages of marriage need not end with the healthiness of a house and this is heavily paid for by a want of companionship between husband and wife such as would, we fear, be almost inevitable were the woman's shoulders so heavily laden. Her own health, too, is more than likely to suffer under so many constant household cares, and it would be a poor consolation even to the domestically scientific mind that a self-inflicted breakdown should be endured in a room of unimpeachable ventilation. The teaching of domestic science is as yet in its infancy. In Baden, which is considered to be "far beyond any other German State in the completeness of the arrangements in this respect," the present system dates from 1891, and in Switzerland and Belgium there is already a high degree of development, but in Great Britain there is still very much to be done. London has taken up the subject in a systematic manner in its Board schools, but outside these England presents a wide field for improvement. This being so, it is all the more important that the advocates of domestic science should not be too widely ambitious at the start. There is much to recommend the principle by which a man is advised to aim at mountains whereby he will at least hit a tree, but there is also much wisdom in the adage approving "little beginnings," and we believe that domestic science will best succeed by including a rather smaller field of activity, for the present at any rate. That it will succeed and that its success is for the general good we have no

doubt. The records of what has already been accomplished are sufficiently convincing. Nor do we hesitate to say that all medical men should take an active part in aiding the propagation of domestic science whether by precept, if they be medical officers of health, or by example in whatever other line of practice they are engaged. But the domestic science which medical men will recognise in this way will be one of rather more limited field than that sketched in the schedules given in Dr. MCNEILL'S instructive paper.

There must, no doubt, be considerable difficulties in the actual teaching of domestic science, particularly to girls of that class in which an acquaintance with it is most desirable. To begin with, the number of subjects already taught at board schools and schools of a similar standing is enough to tax the scholar's receptivity to the full. It becomes, therefore, a question of dropping some already recognised branch of learning in favour of domestic science. This need not, however, prove a very serious obstacle, for the latter subject would certainly not be taught with any utility till the later stages of a schoolgirl's career, and the amount of arithmetic and geography, for instance, acquired by that time would probably allow of the substitution of domestic science for these subjects without serious disadvantage to the pupils. A greater difficulty lies, we think, in the practical nature of those branches of domestic science in which knowledge is most valuable. In such matters as ventilation, cleanliness, cooking, and general regularity of living, teaching by word of mouth is a poor substitute for that practical education which could only be attained by a teacher and pupils living together, a method which must be in most instances impracticable. That it is not altogether so and that the general health of the country would be improved by an extension of the practical teaching of the most important elements of domestic science is a proposition which will find support, we think, from all who give the subject the careful attention which it deserves.

AT the present time a great deal of discussion is taking place in Ireland, and especially in Ulster, in reference to the duration of the annual holidays of the dispensary medical officers and the payment of their substitutes, and we propose to lay before our readers a short statement of the facts. For several years past the Irish Government and the Local Government Board have been approached from time to time by deputations (and all praise is due to the Irish Medical Association for their unceasing efforts in this matter) who pleaded the urgent need of obtaining for the hard-worked dispensary medical officers an annual vacation. The Local Government Board, struck with the fairness of such a proposal and by the fact that public opinion, as represented by all sections of the press (irrespectively of politics), approved of it, came to the conclusion that the matter was one to be dealt with at an early opportunity. The necessity for issuing general rules for the government of dispensary districts, owing to the alteration in the law made by Section 30 of the Local Government (Ireland) Act, 1898, afforded the requisite opportunity, and accordingly the Local Government Board in Article 28 of these rules stipulated: "Each medical officer shall be allowed an annual vacation, not exceeding four weeks, and the guardians shall pay to the medical practitioner employed temporarily to discharge the duties of the medical officer for that period such reasonable remuneration for his services as the Local Government Board shall approve or direct. The medical officer shall not relinquish the discharge of his duties until he submits an application to the guardians nominating a duly qualified practitioner who undertakes to perform the duties of temporary medical officer at a rate of remuneration to be stated, and until the Local Government Board express their approval of the arrangement made." In transmitting in March, 1899, to the clerk of each union a copy (in book form) of these new rules and regulations, the Secretary of the Local Government Board, in a separate letter, said that they were anxious to secure uniformity as regards the annual vacations granted to medical officers, as very great diversity had hitherto existed in the practice of boards of guardians in this respect, and he stated, "Article 28 provides for an annual vacation of four weeks to each medical officer." It would appear that in the past the guardians had the power to grant leave of absence to their medical officers and to pay their substitutes, and in many unions it was the practice to give a month's vacation in each year; and it was really this custom as well as the Civil Service regulations which influenced the Local Government Board in coming to the conclusion that a period of one month was the most reasonable vacation to be allowed, and hence they decided upon a uniform rule which would be binding on all boards of guardians.

As soon as the dispensary medical officers, in accordance with this new rule, asked for a month's holiday the guardians began to grumble and to raise difficulties, and the Belfast Guardians sent a memorial to the Local Government Board on the subject and they also forwarded copies of this memorial to other boards of guardians with a view to their joining them in an appeal to the central authority in Dublin; it is largely owing to this action of the Belfast Guardians that the agitation was begun in Ulster. In their memorial the Belfast Guardians urge that there is nothing in the Local Government (Ireland) Act, 1888, to justify an increased remuneration to the dispensary medical officers; but it is now the year 1899 and Irish boards of guardians are under the Local Government (Ireland) Act, 1898. They also try to argue that the construction of the words "not exceeding 28 days" in Article 28 of the Dispensary Regulations is that the local authority has a discretionary power to grant a shorter period; but, in reply to this, we may point out that this is the phraseology used in the Civil Service, Governmental, and Parliamentary documents. If a civil servant is allowed a sum not exceeding 1 guinea per night when away from home, it would surely be very curious to say that this may be interpreted as allowing the local authority for whom he is working to give him 10*s*. When Lord KITCHENER of Khartoum was granted by the House of Commons a sum the phrase ran "not exceeding £30,000," and would any Member of the House contend that this might be interpreted by the Treasury as meaning £10,000? This Belfast memorial is full of special pleading, such as that no medical man engaged solely in private

practice leaves his patients for a longer period than two weeks and that giving a month's holiday would be an imposition upon the already overtaxed ratepayers; that it is a "privileged class order"; and that it is depriving the guardians of their discretionary power of dealing fairly with the public money and with their officials.

We are glad to know that the Local Government Board have not been influenced by this memorial. They are of opinion, having regard to the responsible nature of the duties which dispensary medical officers perform and to their liability to be called on duty on Sundays as well as on week-days and at all hours of the day and night, that it is essential that they should have secured to them as a matter of right a definite period annually for rest and recuperation. The Local Government Board are, we think, acting very wisely in taking the view that their regulation for securing for the dispensary medical officers an annual vacation is necessary, not merely for the sake of the officers concerned, but in the best interests of the ratepayers and of the sick poor. It is probable that the matter may be brought before the law authorities, as the Donegal Board of Guardians have absolutely declined to be bound by Article 28, and they have taken the opinion of THE MACDERMOT, Q.C., who says that the length of the vacation is optional. We trust, however, that the Local Government Board will resist all attempts either to upset their most fair and reasonable regulation or to evade it by the guardians delaying to appoint a locum-tenent or by offering a small salary, so that before it is possible to put the Local Government Board in motion about such delay the time for a holiday will be past. We sincerely hope that having taken such a strong position in their effort to secure for hard-worked and underpaid dispensary medical officers an annual holiday, the Local Government Board will, in the language of a distinguished statesman, "see this matter through."

Annotations.

"Ne quid nimis."

PROFESSIONAL BEHAVIOUR.

THE annual harvest of inaugural addresses this year yielded a crop of higher quality than is usual. To take only three of them, the discourses of Professor Clifford Allbutt, of Sir James Crichton Browne, and of Sir William Gairdner were no less remarkable in their matter than in their rhetorical style, but it may be questioned whether the neophyte just admitted within the courts of the Temple of Medicine would gather very much of a practical nature from these discourses. For a common-sense view of the battle which a practitioner should wage we must commend the eminently plain-spoken, sometimes even brutally so, address of Mr. R. F. Tobin at St. Vincent's Hospital, Dublin. Whether this house of healing be dedicated to St. Vincent the Spanish deacon or St. Vincent de Paul it was a most fitting place for those who, in Mr. Tobin's words, are "boldly joining the battle of life" to hear some excellent advice on the conduct of the war. Mr. Tobin laid special stress upon beginning work as soon as possible after becoming qualified. "Drifting," he said, "is usually done by men in search of what they call a vacancy. Now let me tell you there are no vacancies in the medical profession." Mr. Tobin went on to speak of the importance of keeping up appearances, of course, however, with a due regard for the honourable traditions of the profession.

"You may advertise yourself by your hat, by the play of your facial muscles, by titles, equipages, mansions in fashionable squares, reports of cases, inaugural addresses—in a word, by every action which a man may play. Advertisement with us may be described as a keeping up of appearances, for, of course, it is by appearances the public are mainly guided in their estimation of us. I am not going to run full tilt against advertisement. On the contrary, I hold that a doctor often cannot do better than put his money into his own business—firstly, by making himself as efficient as possible; secondly, in properly setting forth such efficiency. But, at the same time, I would like to warn you against overstepping the limits outlined by the experience and good sense of the wise men who have gone before us."

After a warning against what, to use a strictly Parliamentary expression, we may call a "game of bluff," Mr. Tobin bade his hearers remember that it is often contrary to a man's pecuniary interests to be forced too rapidly into practice. Mr. Tobin was peculiarly happy in his remarks on telling the truth—i.e., the truth modified by circumstances as it may have to be. In our profession it sometimes happens that the remark made by a character in a play which was presented some 20 years ago in London has to be remembered. "Gentlemen," he said, "it is quite evident that all we have to do is to tell the truth, but for any sake let us decide on what the truth is to be." Not that we mean by this that deceit is necessary. With regard to veracity we can as a profession hold our heads high, but the naked truth sometimes has to be suitably clothed. Mr. Tobin closed his address with a pathetic reference to the beauty of hidden lives—those, for instance, of sisters in the hospital and humble heroes in the army. To those students, not only of St. Vincent's Hospital but of every other hospital, who are beginning what is necessarily a hard struggle, the rallying cry of the old Theban legion in a time of sore trial, "Vincenti," may serve nowadays as it did then to save them from failing in the strife.

THE LAW AND THE SALE OF POISONS.

WE directed attention in THE LANCET of Oct. 21st to a pernicious consequence of the Medicine Stamp Acts and we showed that this consequence, however unintentional and unforeseen, is related to essential errors in the terms of the Acts themselves. Framed as they are they form an effectual cover for the practices of the nostrum seller. Furthermore, as we pointed out, the Government stamp, notwithstanding its denial of responsibility, which probably not one purchaser in a hundred reads, can hardly fail to act as a guarantee in the eyes of the ignorant many. Under its imposing shadow the conventional signs of poison are disguised while at the same time a salesman's ingenuity commonly finds for the poison label a place of obscurity and an explanation which renders it nugatory. Truly the position of saleable poisons in our time is not beneath the notice of authority. Let us quote but one example. The unsatisfactory treatment of opium under the Sale of Poisons Act has long been a subject of complaint alike with medical practitioners and dispensing chemists. If the Act is to be regarded merely as a warning to the ignorant it may indeed be said to have fairly attained its purpose, at all events in the case of persons who are not too ignorant to read. It duly provides that a poison label shall be affixed to preparations containing opium. But it is evidently intended as more than a mere danger signal. It aims at placing a check, sufficient at least to ensure deliberation and a sense of responsibility, upon the sale and purchase of the stronger poisons—those, namely, which are included under Schedule A. Morphia is classed among these while its milder but amply narcotic parent opium belongs to the B division and is

held to be sufficiently safeguarded by being sold in a dark bottle and labeled "poison." Consequently the sale is under practically no restriction and chemists constantly hand over the counter laudanum "on draught" enough to poison a family, as the event occasionally proves. More than this, the very drugs which are classed under Schedule A when made up in recognised proprietary mixtures are similarly saleable, though divested of all the cautious requirements connected with a registered purchase by persons known to the seller and for a known purpose. The case of chlorodyne has been often quoted. This compound contains besides its agreeable aromatics approximately half a grain of morphia, or the equivalent of six grains of opium, in each drachm. It is, therefore, a stronger preparation of opium than ordinary laudanum and it enjoys the same freedom of sale with this important difference: that the containing bottle shows no distinctive signs besides an ostentatious revenue stamp which to the casual eye appears to confer the guarantee which it disclaims, and a quite unpretentious poison label writ small at the very bottom. Yet this poisonous and agreeable stuff is freely sold to all and sundry without a check from medical supervision and is used, no doubt, as freely by those who purchase it. Dr. F. C. Coley, writing in the *Medical Temperance Review*, recently issued a warning against the evil associated with this unwarranted laxity in dealing with a dangerous drug. In his objections to this practice as most injurious in relation to some states of disease and as conducive to the morphia habit we entirely concur. His experience in such cases is by no means unique. That afforded by successive coroners' inquests could furnish even more conclusive proofs to the same effect. Half measures in such a case are valueless. We can see but one available remedy—namely, that the preparations of opium should be treated as forms of a dangerous poison and their sale governed by the reasonable restrictions provided under Schedule A of the Act without regard for proprietary objections. What we have said of opium we might say of more than one other poison which finds a place in the quack repository. For the present we are content to mention the drug which is, on the whole, the chief offender, in the hope that an example may be made of it.

HARMLESS BUT OBJECTIONABLE MICROSCOPIC ORGANISMS IN WATER-SUPPLIES.

IT is well known that in large reservoirs of still, clear water an active vegetable growth sooner or later takes place which imparts an oily and fishy odour as well as taste to the water. Chief amongst the organisms which are concerned in this undesirable result is the asterionella which belongs to the diatomaceæ. The name is derived from the fact that normally the cells which resemble in shape the humerus are united by their extremities into star-shaped clusters. The clusters, indeed, resemble the circular watch-keys that used to be made containing keys of different gauge. A very interesting contribution on the history and habits of this singular organism has recently reached us from Mr. George C. Whipple, biologist and director in the laboratory department of water-supply, Brooklyn, New York, and Mr. D. D. Jackson, chemist, of the same department. It is shown that the rapidity of growth of asterionella depends upon the amount of sunlight, and accordingly the organisms are found to be most abundant near the surface. The authors advance the theory of spore formation as accounting for the seasonal prevalence of the organism which is usually directly after periods of stagnation. The observations were made on the water supplied to Brooklyn. At times the number of organisms has reached 50,000 per cubic centimetre, but by employing a by-pass to avoid (we take it) stagnation this number has been very materially decreased. The odour appears to be due to minute oil globules from two to 10 in number in each cell and the intensity of the odour depends upon the number of organisms present. From an analysis made of the organism, the cell of which is composed of pure silica to the extent of 50 per cent. of the whole organism, the investigators have calculated the amounts of the various mineral constituents that a water must contain in order to support a growth of 10,000 asterionella per cubic centimetre, this number being sufficient to give a distinct odour to water. The average weight of one asterionella cell has been calculated as 0·00000000036 gramme. It is suggested that the constituents which are present in water and which nourish asterionella might be limited. It would appear more feasible to store drinking supplies in the dark, but this could not be done without considerable difficulty. Imagine the large London reservoirs covered in. Frequent cleaning of the reservoirs would probably alleviate the trouble. If organic matter is not permitted to collect and decompose on the bottom of the reservoir and if the organisms are not permitted to sporulate in this mass there is good reason to believe that such heavy growths of asterionella as have been recently observed in Brooklyn will not occur again. This plan would be much more practicable than shutting out the sunshine from the reservoir or of controlling the food elements of the organism in the water—namely, silica, manganese, iron, and nitrates. Another point which occurs to us is that in the absence of sunshine there is the possibility of pathogenic organisms retaining their vitality or even of multiplying.

THE CHELSEA PHYSIC GARDEN.

THE history of "physic gardens" in England begins in the year 1567 when John Gerard, a surgeon of London, first cultivated a garden for the botanical study of plants; he was followed by the Earl of Danby who endowed a garden at Oxford in 1652; while the most famous example—that of the Apothecaries' "garden" at Chelsea—was founded in 1673. This interesting, ancient, and historic institution has recently been discussed in the public Press with a view to the necessary steps being taken to rescue it from the risk of falling into the hands of the builder, as well as to draft some permanent and satisfactory scheme by which it might continue effectually to promote the scientific and educational purposes for which it was originally intended. Sir Hans Sloane, whose liberal munificence bequeathed a lastingly valuable legacy to the citizens of London, both in connexion with this garden and with our "national treasure house," the British Museum, in the year 1722 granted to the Company of Apothecaries the land for this garden, subject to this important proviso that "the said garden may at all times hereafter be continued as a Physick Garden and for the better encouraging and enabling the said Society to support the charge thereof for the manifestation of the power, wisdom, and glory of God in the works of the creation, and their apprentices and others may better distinguish good and useful plants from those that bear resemblance to them and yet are hurtful, and other the like good purposes." The expenses entailed on the Society of Apothecaries in maintaining the garden in an efficient state have undoubtedly been heavy, this financial burden having induced them on more than one occasion to endeavour to obtain some relief from, or possible dissolution of, their trusteeship; thus we find that in 1893 they made application to the Charity Commissioners but with no definite result until 1897 when a Treasury committee, consisting of Sir Henry Longley, Sir W. T. Thiselton-Dyer, and Mr. Spring Rice, made an exhaustive investigation of the whole subject, directing their attention specially to the practical utility of the garden for the purposes of its original foundation—i.e., the scientific and educational study of

botany. They thereupon recommended the formation of an entirely new administrative body which would be able to maintain unimpaired the true instructive object of the garden and to furnish the necessary funds for its future welfare and efficiency; consequently the Treasury Committee appointed the trustees of the London Parochial Charities to be the sole trustees of the garden, the committee of management to consist of 17 members. Now the representatives appointed by the trustees of the London Parochial Charities are: the Hon. Mrs. Evelyn Cecil, the Right Hon. Sir M. E. Grant-Duff, Mr. W. Hayes-Fisher, M.P., Mr. R. B. Litchfield, Mr. L. B. Sebastian, Sir Owen Roberts, Mr. Sidney Webb, the Rev. R. H. Hadden, and Mr. Evan Spicer. The Lord President of the Council has appointed the Right Hon. Sir Herbert Maxwell, Bart., M.P., while the Treasury has nominated Mr. A. B. Freeman-Mitford as its representative. The Royal Society is represented by Dr. D. H. Scott, F.R.S.; the University of London by Professor S. H. Vines, F.R.S.; the Society of Apothecaries, which is to appoint in rotation with the Royal College of Physicians of London, by Mr. J. R. Upton; and the Pharmaceutical Society by Mr. Michael Carteighe. Earl Cadogan, as hereditary "lord of the manor" with concurrent rights, or his nominee, is an *ex-officio* member of the committee, and the Chairman of the Technical Education Committee of the London County Council will in all probability represent that well-known and useful metropolitan parliament. Lastly, we understand that Mr. H. Howard Batten of 3, Temple-gardens, E.C., is the honorary secretary to this representative committee. We note with pleasure that this ancient "charity" with its endowments will in the future be administered exclusively for the advancement of botanical study with special reference to the varied requirements of scientific instruction and original research, to those of our "materia medica" and technical pharmacology in so far as they relate to the practical culture of medicinal plants, and last, but not least, to the increasing requirements of our general educational system. When for one moment we recall the historic past of this old "Physic Garden," the great and learned men who in bygone days strolled between its neat beds of various herbs and rare plants, when we gaze at the august statue of Sir Hans Sloane standing in the middle of the garden, when we remember that Linnæus himself visited this picturesque field of flowers, that old Thomas Wheeler lectured there to many generations of the "Society's" students, and that the famous Lindley there arranged the plants into their "Natural Orders" in contrast to the old "Linnæan system," we cannot but naturally feel that the efforts to keep alive the floral beauties, the many botanical advantages, and the rare historic associations of this quaint and pleasant garden are indeed worthy of the sincere support of all intelligent Londoners as well as of our Imperial Government.

THE RECENT TROUBLE AT LOWESTOFT HOSPITAL.

MISUNDERSTANDINGS between members of the medical staff and the nursing staff at hospitals are fortunately of rare occurrence. The superior training afforded to nurses enables the position of a matron or a nurse to be clearly defined. Seldom is it, indeed, that a matron takes it upon herself to interfere with the orders of the surgeon or physician, but should this occur the incident is at once investigated and the whole matter speedily set at rest. Such an inquiry, however, must necessarily be unpleasant, and the meeting recently held in connexion with the Lowestoft Hospital is an example. Certain events had taken place owing to which the senior surgeon, Mr. H. B. Walker, had sent in his resignation, but pending the decision of a committee of inquiry he had unconditionally withdrawn the resignation. On Oct. 19th a meeting of the governors of the hospital was held, at which the report of this committee was read, and the conclusions arrived at were briefly as follows. The matron's charges against Mr. Walker of "constant incivility" to her and "of systematically striving to undermine" her authority with the nurses were judged by the committee to be "not proved." Mr. Walker brought six charges against the matron. Two of these—"interfering with the admission of patients to the hospital" and "causing a patient to leave ..... by making observations to her"—were dismissed; but another charge "of using language with reference to Mr. Walker of personal insult" was considered proved. The matron was also judged to be in the wrong in other instances, especially in "refusing to attend in the out-patient department until four times sent for by Dr. Evans," the assistant surgeon. The report concluded with an expression of opinion that an apology was due to Mr. Walker from the matron for using disparaging remarks about him and permitting others to make the same in her presence without reproof. After some remarks, in which Mr. Walker stated that in the interests of the hospital he had no wish to receive the apology, and on an intimation from the matron that she regretted having used certain expressions, the matter was declared to be at an end. For the satisfactory working of a hospital it is essential that all the varying departments should work harmoniously, otherwise the objects for which the hospital was founded will suffer. Above all, in dealing with the patients the orders of the medical staff must be unquestioned and if the matron or any other official is not content any complaint should be made direct to the committee, but individual action should not be taken against the physicians or surgeons. The nursing staff is subordinate to the medical staff and such a relation must be respected in the best interests of the patients. Happily, in modern hospitals this principle is fully understood and consequently uncalled-for remarks or interference on the part of the matron or nurses are most rare; on the contrary, the medical staff is most loyally and cordially supported by all the members of the nursing staff.

THE EMPLOYMENT OF THE CHRONIC INSANE.

THIS is a problem of medical and economic importance and it is now receiving considerable attention all over the civilised world. At a special meeting of the consulting medical staff of the State Asylum for the Chronic Insane at Wernersville, Pennsylvania, on Sept. 26th, Mr. Henry M. Dechert, President of the Board of Visitors, gave full details of the administration of the institution at the present time. The population of the asylum consists of chronic insane patients only. An important problem has been put to the test here—viz., as to whether it could be possible to utilise adequately and thus render valuable the services of the inmates so as to render the institution in which they lived in a measure self-supporting. The idea—not a new one, by the way, though *thoroughly* carried out in this institution for the first time in the history of asylum administration—was to give employment to the chronic insane. The institution has been in operation for about five years and it receives patients from all the State hospitals for the insane. Only such patients of the chronic class are selected as inmates who are *primâ facie* judged to be physically and mentally capable of work. The asylum is located on farm grounds in one of the most fertile districts of Pennsylvania, and hence supplies means of agricultural labour only. The results achieved are as follows as regards the amount and value of the labour of the inmates compared with that of the ordinary civil population. (*a*) Of the patients 6 per cent. can perform

work equal to paid labour, 30 per cent. can perform labour equal to one-half of paid labour, and 50 per cent. are equal to one-fourth of the value of paid labour. The balance of 14 per cent. are non-working, and this includes those who are ill or are found on trial not to be able to work. (*b*) The estimated value of the gross amount of work done during the current year, on a basis of 400 men, is $20,000. The estimated cost of food per head is 20 cents per diem, or $1.40 per week. (*c*) The health and welfare of the patients are medically attended to and the medical reports regarding the health and mortality are found to be entirely satisfactory. From these facts it may be judged that the Wernersville Asylum is a highly successful institution and that the practice of employing the insane is being rewarded with gratifying results. Indoor work—e.g., brush-making—is now being introduced as an extension of the original industrial scheme, and it is believed that this also can be pursued with profit. The example of Wernersville might with advantage be followed in a systematic way by institutions in Great Britain as well as by those in the United States. It is to be hoped that the prejudices of outside free labour will not be excited against asylums which would undertake to do work which competes with such labour. That the products of asylum labour would be such as to admit of "export" in any large degree is improbable; but the making or endeavouring to make such institutions—the erection and maintenance of which entail at present such a vast expenditure of public money—in a measure self-supporting is deserving of all serious consideration.

REPORT OF THE AGRICULTURAL DEPARTMENT OF ABERDEEN UNIVERSITY UPON THE VALUE OF TUBERCULIN AS A TEST FOR TUBERCULOSIS IN CATTLE.

EVERY scientific investigation bearing upon the subject of tuberculosis in man or animals is of especial interest at the present time on account of the prominent position which this disease occupies in the minds of the medical and veterinary professions and also of the general public. Mr. M'Lauchlan Young, F.R.C.V.S., and Dr. S. H. Walker have recently tested some 240 cattle with tuberculin, the results being followed out by a careful post-mortem examination in each case. Most of the animals were tested before removal from the farms, but in a few cases the test had to be made in the byres of the slaughter-houses after the cattle had been there for at least 24 hours. As a general rule Mr. Young applied the test and noted the effect on the living animal, whilst Dr. Walker, who was kept in ignorance of these results, conducted the post-mortem examinations. Out of 100 two-year-old bullocks 20 reacted after inoculation and one was suspected on account of a rise of temperature to 103° F. and other symptoms. All these proved to be tuberculous. In two instances (Nos. 19 and 55) there was no temperature reaction, but in each case there was found "a small calcareous tubercle about half the size of a pea in a mesenteric gland." Out of 60 heifers just under two years old six reacted and proved to be tuberculous, whilst in addition four which failed to react were proved to be infected. This was explained in two of the cases by the fact of tuberculin of more than a year old having been used and satisfactory reasons were given in the other two. 77 cows were tested and 42 were found after slaughter to be tuberculous, although only 25 had reacted. Most of them were, however, old cows in which the disease had existed extensively for some time. Out of the three bulls one was tuberculous. In the bullocks and heifers the bronchial and mediastinal glands were affected in 25 cases and the lungs in 15. The pharyngeal glands were diseased in seven and the mesenteric glands in five. In nearly all the cows the bronchial and mediastinal glands and the lungs were affected; the liver was diseased in 13 and the udder in seven. Tuberculous disease of the udder is of the utmost importance on account of its bearing on the milk-supply for human use. The writers of the report say: "We found that almost 10 per cent. of the cows had tuberculous udders and that over 16 per cent. of the tuberculous cows had tubercle of the udder. It is to be noted that only one of the udder-affected cows could be called a 'piner,' whilst the others were ordinary dairy cows in fair condition. Too much stress cannot be laid upon the last statement as it shows the absolute unreliance to be placed upon a mere examination of dairy cows without the application of the tuberculin test." Of the whole 240 animals 31·7 per cent. were tuberculous. The report concludes with the following emphasised conclusions: "1. Our experience confirms the generally accepted opinion that tuberculin loses its virulency when kept for any length of time. 2. When used with care and under proper conditions tuberculin is a reliable diagnostic of tuberculosis in cattle, except (*a*) when tubercular lesion is minute, or (*b*) when the disease has become generalised, especially in the case of aged and emaciated animals. 3. Tuberculous udder occurs more frequently than is generally believed to be the case."

A CASE OF RAPID ANTE-MORTEM AND POST-MORTEM DECOMPOSITION.

MR. E. B. WHITCOMBE, medical superintendent of the Birmingham Asylum, records[1] a case of medico-legal and practical interest illustrative of the above condition. The case was that of a man, aged 39 years, a porter by occupation and married, who developed general paralysis of the insane. He had been in the army, had served 12 years in India, and was said to have been of temperate habits. His disease progressed in the ordinary way till Jan. 14th, 1899, when he was noticed to be worse. He was carefully examined and nothing of special importance was discovered, but owing to physical weakness he was ordered to be put into bed and to be kept warm. This was about three o'clock in the afternoon. At seven o'clock the same evening the patient was found to be suffering from a marked general swelling of the left leg from the thigh to the toes. The left leg seemed "double the size of the other leg and nearly the whole surface of the leg was perfectly black, and there were numerous large bullæ the size of one's fist in different places along the leg. There was no special line of demarcation." Careful examination revealed the fact that putrefaction had actually set in and death took place an hour afterwards. The most extraordinary part of the case was to follow. The patient had died at 8 P.M. on Saturday, and on seeing the corpse between 10 and 11 A.M. on Sunday "the body was double the former size; it was more like the body of a negro, the whole surface being in a black condition, and the bullæ had increased on the other parts of the body. The scrotum was distended to the size of a man's head and the penis swelled and distorted. The case was the more extraordinary as the highest temperature (of the atmosphere) recorded locally at the time was 52·8° and the lowest 34° Fahrenheit." The post-mortem examination was made by Dr. R. M. Simon, Professor of Medical Jurisprudence in Mason College. The result was that the whole body was found, internally and externally, to be putrefied. No conclusion could be assigned as to any cause for this extremely rapid putrefaction. Mr. Whitcombe observes that it would have been very difficult for anyone unacquainted with such a case as the present to have fixed the time of death from examination of the corpse. "Here was a body presenting the appearances which are usually recognised as those of three or four weeks

[1] Journal of Mental Science, October, 1899.

duration and these had happened certainly within 16 hours." From a medico-legal point of view it was to be borne in mind that a murder might have been committed, that the body might present such appearances as the above, and that it would be a most serious matter for a medical man to give an opinion as to the time of death. In hot countries decomposition undoubtedly sets in quickly after death, but here was a case where in the middle of winter and, as far as could be judged, from no special cause this condition did occur to an extraordinary degree. It is stated that there was some atheroma of the arteries, but otherwise nothing of importance could be discovered at the post-mortem examination. It is to be regretted that no bacteriological examination was made.

THE STOCKPORT AND DISTRICT MEDICAL SOCIETY AND THE STOCKPORT CENTRE OF THE ST. JOHN AMBULANCE ASSOCIATION.

WE are informed that arbitration in connexion with the differences between the Stockport and District Medical Society and the Stockport Centre of the St. John Ambulance Association, which was accepted by the society in July last, has now been accepted by the chairman and honorary secretary of the local centre. The arbitration will take place on Monday, Oct. 30th, and the arbitrators appointed by the Central Executive Committee of the St. John Ambulance Association are: Colonel Bowdler, Sir James N. Dick, R.N., K.C.B., and Inspector-General Belgrave Ninnis, M.D. St. And., R.N. We have stated very plainly our views on the situation that has been created at Stockport, and we learn with pleasure that there is an early prospect of a termination being put to it.

INFANT FOODS AND SCURVY RICKETS.

THE *Journal de Clinique et de Thérapeutique Infantiles* of Oct. 19th contains two short papers dealing with certain effects produced by artificial nutrition in infancy. One of these is the report by MM. Guinon and Le Guelland on a case of scurvy rickets. This case was a fair example of its kind, notwithstanding that no subperiosteal hæmatomata were observed. The usual signs of rickets were present, the gums were spongy and tinged with blood, and the arms and legs were œdematous. The child, then two and a half years old, had been brought up from birth on "maternised" milk. After this diet had been exchanged for one of ordinary boiled milk, with potatoe, lime-juice, and even a little raw meat the scurvy disappeared and a general improvement in health supervened. The other paper was communicated by M. Miele to the Flemish Medical Congress held at Antwerp in September. In it the writer discussed the etiology of rickets. He referred to the connexion commonly observed to exist between this disease and artificial feeding in infancy. He noticed also the toxicity exhibited by the urine in many cases of dyspepsia and he based on these facts a belief that the dyspeptic basis which underlies the rachitic state really implies a toxic absorption. The result of this is a blood-dyscrasia and this again gives rise to malnutrition of tissue cells in the bones and viscera and to all the rachitic phenomena. He quoted two cases of myxœdema in children, both attributable apparently to a rachitic perversion of growth in the thyroid gland. This hypothesis, whether we accept it in all its details or not, is by no means an unreasonable explanation of the undoubted association of rickets with an improper dietary. It is notorious that a system of artificial feeding during infancy is becoming very general in this country and that it even amounts in some cases to the virtual exclusion of natural milk from the daily diet. This practice implies a departure from the normal method which cannot but be viewed with grave anxiety. There may be cases in which it may answer for a time as a temporary expedient in the case of delicate children, but it is always needful to remember that such methods at best are unnatural and, if employed, must be closely watched and discontinued in favour of a natural milk diet as soon as this can be borne. Otherwise we shall in time to come see more of the still uncommon disease known as scurvy rickets.

THE READING PATHOLOGICAL SOCIETY.

DURING the past year a scheme of amalgamation has been elaborated between the Reading Pathological Society and the Reading Medico-Chirurgical Society. The Reading Pathological Society enjoys the distinction of being the oldest pathological society within the United Kingdom with the exception of the Dublin Society, which was founded a few years previously. It was inaugurated at a meeting held at the Royal Berkshire Hospital on July 13th, 1841, for "discussion of medical and surgical subjects and of other matters connected with the profession," and a descriptive catalogue of all the morbid preparations was to be kept by the curator. In 1883 the society transferred its meetings from a room in the hospital to the new library and its morbid specimens to the museum which had been erected by the governors of the hospital. In the year 1844 a pathological microscope (then a rare instrument) was purchased by the society at a cost of £56 in order to facilitate histological investigations. During its existence the society has done much good work for its members and questions of great interest and benefit to the town and neighbourhood have been discussed and advocated. The "Bradshaw" Lectures of the Royal College of Surgeons of England were instituted in memory of one of its members, Dr. William Woode Bradshaw, M.A., D.C.L., F.R.C.S., who after practising at Andover retired to Reading. The Reading Medico-Chirurgical Society was established in 1824 for the purpose of forming a medical library and diffusing medical literature. Since its formation it has collected a large library containing several rare old works and most of the newest text-books and works of reference. It is hoped that the fusion of these two flourishing societies may result in further good work and the advancement of the science of medicine.

CAMBRIDGE AS A MEDICAL SCHOOL.

THE University of Cambridge is to be congratulated on the fact that among English medical schools in point of numbers it heads the list of entries of students for the full medical course for 1899–1900. There may be some difference of opinion as to the exact explanation of this fact and of the remarkable development of Cambridge as a school of medicine. But we shall not be far wrong in concluding that Cambridge succeeds because she deserves to succeed. She has had the wisdom to perceive early the immense importance of biology and of medicine for the future of the world, and she has set herself to the work of wedding these sciences to each other and giving to both of them entertainment in her lecture rooms and in her laboratories. She has strained her resources in providing such entertainment. Wherever she sees a physician or a physiologist, a pathologist or an anatomist who will represent the best and the most advanced knowledge of his subject he is chosen irrespectively of his nationality or of his school. It is natural that men should be drawn to a university which is so old and yet so young and which does not allow either mathematics or classics to absorb all her sympathies. She may, however, be tempted to be too partial to her own methods of teaching and examining and to exact too slavish a conformity to her tests. A correspondent writes: "In the admirable Introductory Address

of the Regius Professor of Physic delivered at St. Thomas's Hospital there is a suggestion of a tendency that Cambridge has to specialise her own teaching and her own examinations. His words bear a slightly minatory construction seeming to imply that candidates would have a bad time in certain subjects if their knowledge of them did not run in Cambridge lines, to be gathered only by taking Cambridge courses." Our correspondent has probably misunderstood Professor Allbutt.

PRACTICAL PATRIOTISM.

As all our readers know, Sir William Mac Cormac, the President of the Royal College of Surgeons of England, is proceeding to South Africa to be attached to Sir Redvers Buller's Field Force. The action of Sir William Mac Cormac in thus placing his general skill and special experience at the disposal of the Government can hardly be too highly commended, and among members of his profession, where the sacrifice that he is making will be understood exactly, there will be only one feeling—viz., that they are glad to count as one of their leaders a man so prompt to serve his country in her needs. The suggestion that one or more distinguished civilian surgeons should be sent to the seat of war emanated from the Director-General of the Army Medical Department, who proposed it to the Secretary of State for War. The idea, a very wise one, was cordially approved by the Minister, and it was made a particular point by the Army Medical Department that Sir William Mac Cormac should be the man, or one of the men, sent out. To this urgently expressed desire Sir William Mac Cormac yielded, and we congratulate him upon doing so, wishing him a good voyage and a speedy return.

RARE COMPLICATIONS OF MUMPS.

IN *La France Médicale* of July 21st, 1899, Dr. Dauchez calls attention to certain exceptional phenomena of mumps. His observations are based on 24 cases which occurred in four families and include those of two domestic servants. Second attacks are rare in adults but they have been described in young French soldiers by army surgeons; and in children they are so rare that Cadet de Gassicourt, Picot, Despine, and Comby have doubted their existence. In 1887 a family of three children was attacked with mumps, the disease presenting all the characteristic signs In 1899—12 years later—another outbreak occurred in the family, which now consisted of 10 children. The children who had previously been affected were first attacked, then six others were affected, the only one spared being the baby, aged six months. In another family a young woman aged 22 years, who had previously had mumps, was attacked a fortnight after a younger sister had manifested the disease. Busquet described three cases of second attacks in the *Revue de Médecine*, No. 9, 1896. In one case attacks occurred at intervals of three and a half years, seven months, and one year. In this case a relapse took place on the twenty-second day after the second attack. Dr. Dauchez noticed that in the family first mentioned the general symptoms were very severe in the second outbreak and of greater intensity in the patients attacked for the second than for the first time. The temperature reached as high as 104° F., the swelling of the parotids and the pain were considerable, and there were gastro-intestinal troubles, furred tongue, intractable vomiting, and painful gastric crises. In one case there were dryness of the mouth and stomatitis. In another family an eruption occurred. Three children were attacked with the disease on the same day, and a fortnight later a servant, aged 22 years, was found to be suffering. All four showed during the disease oval or round, pale, projecting nodosities on the necks, left arms, and right hands. Genital complications were observed in three cases—two in second attacks, which occurred after puberty, and one in a domestic servant aged 24 years. In one of the former cases there was menorrhagia; in the other left orchitis with slight effusion into the tunica vaginalis occurred at about the seventh day of the disease.

THE PRIMATE AT ST. GEORGE'S HOSPITAL.

ON Oct. 25th, a day ever memorable in the history of England, his Grace the Archbishop of Canterbury distributed the prizes gained during the past year by the students of St. George's Hospital. Speaking after the distribution the Archbishop said that personally he owed a great debt to the medical profession: but for that profession he was very doubtful whether he would have been present at all. Medical men, however, had a tendency to be tyrants and, personally, he did not always obey them. The Primate went on to say that although the progress in medicine had been enormous he was not sure that the art had kept pace with the science. This no doubt is true, and probably none are more conscious of the fact than medical men themselves. His Grace concluded by reminding his hearers that the study of a medical man was always going on, for so long as men practised medicine and surgery they ought to continue to study medicine and surgery. There is, perhaps, no profession in which the consciousness that the more a man studies the more things he finds himself to be ignorant of, is so present to the mind as it is in the medical. Theology has its Summa, but medicine has not and in this life never can have.

THE INFECTIOUS DISEASE (NOTIFICATION) EXTENSION ACT, 1899.

SANITARY authorities of districts outside the metropolis in which the compulsory notification of infectious diseases has not been voluntarily adopted should take note of the fact that under the Infectious Disease (Notification) Extension Act, 1899, the requirement as to notification has now been extended to the whole of England and Wales. The history of this system in this country is very remarkable. In the first instance, a few urban authorities procured local Acts requiring notification of infectious diseases in their respective districts. These local Acts soon began to multiply to such an extent and also to exhibit such variations as regards their several provisions that the Infectious Disease (Notification) Act, 1889, was passed; it came at once into operation in the metropolis, and it was to serve as the statutory provision for all provincial sanitary authorities who might thenceforward adopt the notification system. The result was that at the end of 1898 the system of compulsory notification of infectious diseases had already been applied to 28,118,619 out of a total population in England and Wales of 29,002,525. This very remarkable achievement affords an important proof of the growth of public opinion as to the necessity of preventing the spread of infectious diseases. This year a further step has been taken. It was felt that the universal application of the system ought no longer to be delayed because less than a million out of nearly 30,000,000 people had not cared to adopt it voluntarily, and hence the Extension Act of 1899 was passed, under which the system will come into operation throughout the whole of England and Wales on and after Jan. 1st, 1900. This will involve some preparation and organisation on the part of the sanitary authorities concerned, and it would be well, if it has not already been done, that medical officers of health should advise their authorities what they should do to ensure the proper working of the Act in little more than two months' time. Thus it is especially desirable that

it should be made known to the public that when no medical practitioner is called in the duty of notifying certain specified infectious diseases to the medical officer of health devolves on the head of the family. The new Act has another advantage besides securing the universality of the system of notification. With one single exception all notifications in England and Wales will be carried out under the provisions of the general Act of 1889, the local Acts being repealed. The exception is unfortunate. It applies to Huddersfield, where the provisions as to notification are less efficient than under the general Act and where the medical fees are insufficient. The exception was introduced almost at the last moment in the House of Lords and was probably not opposed by the Government lest at the then late period of the session the Bill might have been lost.

AN INSULT TO THE ARMY MEDICAL SERVICE.

IN a report of the Colchester Oyster Feast in the *Times* of Thursday last it is stated that "in responding for 'Our Defensive Forces,' Sir Claude de Crespigny said that unless Sir W. Symons was killed by the Army doctors there was every hope of his recovery." We have no hesitation in branding this unmerited and unwarrantable insult as a shameful libel on a splendid body of men. Doubtless the speech (which must have been a very interesting one, for the above sentence is all that the *Times* records!) was of the nature of that after-dinner buffoonery which apes humour; but surely it is possible to be funny and at the same time to preserve good taste. We trust sincerely that Sir William Symons will live to express a very different opinion of the services of "Army doctors" to that enunciated by Sir Claude Champion de Crespigny, Baronet, late R.N. and Captain 60th Rifles, for of a certainty, if happily his life be preserved, he will owe it to those medical officers on whose behalf as well as that of the whole Army Medical Service we make this indignant protest. We trust that an apology will be forthcoming from Sir Claude de Crespigny, and we must add that in our opinion the editor of the *Times* should have paused before giving to that gentleman's words the world wide publicity of its columns. We should have thought that the present time, when the services of the officers of the Royal Army Medical Corps are so much in request, was singularly inopportune for the utterance and publication of such a coarse and unworthy gibe.

AN ENCOURAGING FEATURE OF THE RECENT FOG.

THERE were some interesting features connected with the recent onset of a very dense fog in the metropolis which appear to have escaped notice. Fog was, of course, the inevitable concomitant of the peculiar meterological conditions prevailing a week ago. The atmospheric pressure steadily increased, an anticyclonic system asserted itself, the temperature fell, and there was no wind. The fog was general and is reported to have been the densest ever encountered in the English Channel, but it was white, and above all it was comparatively white in London. Despite its density, which led to the complete disorganisation of railway and vehicular traffic, there was but a slight approach to the proverbial pea-soup hue, and the Egyptian darkness in which on such occasions London has been invariably plunged was conspicuous by its non-occurrence. Though there was gloom artificial light was not resorted to on anything like the scale of old when the day was as night. Can this be the eminently satisfactory result of the strong measures taken during the year to abate the smoke nuisance? and may we congratulate ourselves on our own attitude on this question since we have urged for several years that the adequate provision contained in the Public Health Act which has been so badly neglected in the past should be vigorously enforced? The Coal Smoke Abatement Society has been very active in this direction and it must be admitted that good on all sides has been done and an eyesore largely removed and a source of injury to health to some extent banished. The air of London has been cleaner lately and the densely smoking chimney appears to be the exception rather than the rule amongst the myriads of chimneys that abound. All this is very encouraging and should stimulate the authorities and others to keep up their excellent vigilance, so that those offenders who may still remain may yet be brought to book. The reward is great if we are right in our interpretation of the fact that this recent visitation of an exceedingly dense fog was unaccompanied by absolute opacity, a quality derived entirely from the foul outpourings of metropolitan chimneys. It would be idle to pretend that the recent fog was not unpleasant and irritating but it was shorn of that terribly depressing character arising from the complete absence of health-giving light.

THE YARROW HOME FOR CONVALESCENT CHILDREN.

THE third annual report and balance-sheet of this institution, for the year 1898, are before us and are in every way satisfactory. Our readers will remember the objects with which it was instituted—viz., to provide a pleasant convalescent home on a health-giving coast for 100 children of a class superior to that of those who are provided for in the ordinary hospitals and homes. The wise and generous conception of Mr. Yarrow has been in every way realised save, indeed, in one respect—that of numbers. The numbers increase year by year. The average number in the home has been 70, but in September only was the full complement reached. It is indeed a model institution. No subscriptions are allowed. The only favour asked is to send suitable cases to the trustees, and the trustees look to medical men for care in selection. Infectious cases are carefully excluded, and when by any mischance they occur they are as carefully isolated. The report of the medical officer, Mr. Frank Brightman, is satisfactory. Of 970 inmates, 647 are returned as cured, 69 as greatly benefited, and 193 as improved; 14 showed no improvement, and six were sent out for operation. On Dec. 31st 41 children remained in the house. Such a record is creditable to the trustees and to the medical officers and nurses. The founder has his own reward. If he has any insomnia owing to thinking of the efficiency of those vessels of destruction in the designing and building of which he is an expert, he must have his antidote in the consciousness that he has established an effective home for classes which are as needy as the poor and not less capable of appreciating consideration. His example is being followed by others, and ere long it is to be hoped we shall have all we want in the way of hospitals and convalescent homes bountifully provided by the rich for those who need and appreciate help.

THE LATEST PHASE OF BABY-FARMING.

AT Marylebone Police-court on Oct. 21st a woman named Mary Fidler was summoned by the London County Council for contravening the Infant Life Protection Act in that she maintained one infant in excess of the number licensed by the Council. The evidence seems to have been somewhat obscure, but it came out that the Council had its municipal eye upon Mrs. Fidler in May, 1899, when she was looking after a child named Graham. In June the inspector again visited the house, when it was found that she had care of a child named Felstead, whom she had taken care of for a few days and who had been removed that day by its mother. On August 18th the child Graham died and at the

inquest Fidler said that she had given up the care of Felstead on August 17th. It also came out that a girl named Mayo who lived with Fidler had nursed Felstead from 5 A.M. to 6 A.M. on August 17th when she put him back in the perambulator and went to bed. On getting up at 8 A.M. she went to look for Felstead and found him gone. On August 16th Fidler told a Mrs. Mills that a friend was coming to take Felstead away and the following day said that he had been taken away. She then informed another neighbour, a Mrs. Oldham, that the baby was dead, adding, "I have put him in the pail with some coals over it." The body of the child, however, has never been found. Mr. Curtis Bennett said that Fidler's conduct was highly suspicious and sentenced her to six months' imprisonment with hard labour. As we said above, the evidence in this case is somewhat hazy, but one thing is perfectly clear. Felstead was one of those unhappy children whose "removal" is to the interest of everybody, and as he was fed upon cornflour and skim-milk, and lived night and day in a perambulator, starvation probably did its work. We trust that during the time in which Mary Fidler is being housed, fed, and clothed at the expense of the taxpayer, the authorities will prosecute inquiries into the fate of Felstead, and also, if possible, arrest the really guilty person, for in these cases the baby-farmer is not always the most blameable person. The mother is by no means guiltless, although in the case of a first child every allowance should be made for her, while the father in many cases gets off scot-free. But our social reformers may well ask themselves if our methods of disposing of the surplus population are so very much better than those of the heathen. Anyway, strangulation by the head man of the village at birth must be for the infant at least preferable to slow starvation by a baby-farmer.

AID FOR THE WOUNDED.

THE steamer *Maine* which was offered by the Atlantic Transport Company to the War Office as a hospital ship has been found so impossible of adaptability, and so large a sum would have had to have been expended upon her to fit her out for the required purpose that the offer has had to be declined. A steamer is now being sought by the Central British Red Cross Committee, and when determined upon and properly fitted out will leave for South Africa about nine days later. It is to be regretted that this Red Cross hospital ship is not already on its way to the Cape in order to transport those officers wounded in the late engagements with all speed to Netley and home comforts. The owner of some large steam yacht would do good service by placing his vessel at the disposal of the committee and letting it be despatched immediately for transport purposes. The St. John Ambulance Brigade has been requested to supply 20 volunteers for service on board the Red Cross hospital ship as hospital orderlies. This has caused the greatest satisfaction in the Brigade and the only regret is that a larger number have not been called for. The members of this Brigade are in emergencies such as the present a most valuable auxiliary to the Royal Army Medical Corps. Being kept in a perfect state of surgical efficiency by annual re-examination both officers and men are perfectly ready at any time to take the place of hospital orderlies or bearer companies when the supply is lessened by the Royal Army Medical Corps being called to the front. 11 nurses of the Army Nursing Reserve, over which H.R.H. Princess Christian presides, have been already despatched and 29 more have been called out to take up the duties of those army nurses who have already proceeded to the Cape. The Central British Red Cross Committee, of which Lord Wantage, V.C., is the chairman, has appointed Lieutenant-Colonel J. S. Young as the Commissioner in South Africa, he having previously acted in the same capacity in Egypt and the Soudan, and it is probable that sub-commissioners will be engaged at the Cape. The hospital train which the committee has decided upon sending out is now in course of construction by the Military Equipment Company, who are under a contract to get the same completed in a very short time. This on its arrival at the Cape will be of great service in bringing down invalids from up country to ports of embarkation for England. The German Red Cross Society which is actively engaged in forming a corps of surgeons with appliances for the Transvaal has received a communication from the British Red Cross Committee courteously declining aid for the present. A detachment will be sent from Germany to the Transvaal *viâ* Delagoa Bay to the assistance of the Boers. All ladies wishing to help by sending material or garments useful in ambulance work should communicate with the St. John Ambulance Association at St. John's Gate, Clerkenwell, which body have been asked by the Central Red Cross Committee to undertake this branch of work. Pipes, tobacco, preserves, and other comforts for the wounded soldiers will be welcome additions to the stores of the Central British Red Cross Committee.

SERUM therapeutics are coming more to the front than ever. Dr. Heron introduced a discussion on the subject which proved of high interest at the inaugural meeting of the Medical Society of London on Oct. 9th[1]; on Wednesday next, Nov. 1st, Dr. Herman will read before the Obstetrical Society notes of two cases in which life appeared to have been saved by anti-streptococcic serum. An active discussion is expected on this subject which is so important to obstetricians.

THE WAR IN SOUTH AFRICA.

IT would occupy a whole number of THE LANCET to record the events which have occurred in South Africa during the past week, but there is happily no need for doing this, for are they not all chronicled in the daily press, together with many of those which have probably never taken place? And which of us does not feel constrained to read his daily and evening paper at a time like the present? Before commencing what we have to say on the subject of the war generally and on its medical aspects in particular we may as well state that it seems to be the opinion of shrewd military men and of those acquainted with what war really is and means, that the present position of our forces in South Africa is, under the circumstances, as favourable as could be expected and that up to the present time far more has been successfully accomplished by our troops in their encounters with the Boers than could have been reasonably anticipated. That there is ground for anxiety, and that it had been accentuated a few days ago, as it is again at the moment of our writing, no one would deny, but this is inevitable in war. There has always been, and there must continue to be, a feeling of this kind until the army corps despatched from this country has arrived in South Africa. Once there and ready to take the field the strength of the British force will be overwhelming. Meanwhile time, as we have already said, is fighting in our favour. Every day that can be put at our back without the occurrence of any great disaster, the nearer we are to a successful termination of the campaign. It must be confessed that the wording of Lord Wolseley's summary statement about the sudden "falling back" of General Yule's force from Dundee in the direction of Glencoe Junction, leaving their wounded behind them at the former place, and as to our troops being greatly outnumbered, was admirably calculated to give rise to a scare. Had this statement been accompanied by some short explanation the result might have been different, but coming as it did when many people had even gone so far as to entertain the belief that the neck of the Boer rebellion had been broken the force of the recoil of public opinion

[1] THE LANCET, Oct. 14th, p. 1018.

was naturally altogether exaggerated. Happily, however, the explanation, which was sufficiently obvious to military men, soon followed, and everybody now recognises the strategical wisdom of what has been done. When the South African campaign opened there was a very general and well-grounded belief that the Boer Government would never have presented us with an ultimatum couched in such peremptory and threatening terms and according such a brief interval for us to accede to them or take the consequences, unless the Transvaal authorities had determined to commence the war whilst we were still unprepared and before large reinforcements from this country could reach the scene of action. Everyone knows what has followed. Several engagements have already taken place, with the result that the Boers have so far been repulsed and beaten by our troops. Still, no large general action of a decisive character has yet occurred nor was it possible for one to have taken place under the conditions now present in that country. The British forces have had to act on the defensive in holding the positions they occupied, assuming an offensive and aggressive line of action where the situation and ground appeared to be favourable to it. That they have done as well as they have has very naturally caused a feeling of pride, surprise, and admiration at their successes. In all the battles that have taken place the British have held their own and in some of them the Boers have been badly beaten.

We do not suppose that any nation has ever been served with greater courage, skill, and devotion in the field and in the senate than this country has been, and is being, served in the present crisis. During war and on the battle-field dramatic incidents crowd one upon the other and the transition from the feeling of pride and exultation in victory to that of human sorrow and pitifulness is sudden and complete: it is a veritable microcosm and epitome of human life, in which weal and woe—through which we all of us, nations and individuals alike, more or less pass—rapidly succeed one another.

It is no part of our function as medical journalists, of course, to inquire as to the justice or otherwise of the cause for which we are fighting. The war has been thrust upon this nation by the ultimatum of the Government of the Transvaal; but even apart from that, whether we are members of the medical profession or not, and to whatever political party we may belong, we are constrained to form some opinion as to the justice of the cause for which we are fighting. To those who hold that the motives of the Boer Government were transparently honest and that their rule has been wise, just, and good in the main we may, *en passant*, commend Mr. Fitzpatrick's book, "The Transvaal from Within," as likely to administer to them "an alterative" which may prove curative, and in any case afford them useful information as to the real object underlying the diplomacy of the Boer Government from the beginning.

Passing on, however, to matters more strictly within our province we may say that the wounded left at Dundee include those of the Boers as well as of our own men; that they are both being equally cared for by our own army medical officers; that by far the best and most comfortable place for wounded men is in rear of the advancing columns, and that it is a recognised principle in all modern warfare that the sooner they can be relegated there the better; that the Boer Government have signed the Geneva Convention, and that as a matter of previous experience the Boers were never harsh in their treatment of our sick. It follows, consequently, from all this that there need be no apprehension about the fate of our sick and wounded left behind in hospital.

It is a source of legitimate pride to the medical profession and of grateful assurance and comfort to the public that Sir William MacCormac, the President of the Royal College of Surgeons of England, has intimated to the War Office his willingness to go to South Africa and place his skill and experience at the disposal of the military authorities. Sir William MacCormac, it is needless to add, has already had a large experience of military surgery and has devoted a considerable amount of scientific study and consideration to the subject of gunshot wounds. We are very glad to notice that his patriotic offer has been gratefully accepted, and that the announcement of it was received with sympathetic cheers in the House of Commons. Sir William Mac Cormac will be accompanied by two specially selected civil surgeons. That they will render the most important services to the army in that country cannot be doubted. What with the large number of military surgeons and others, the help of lady nurses and soldier nurses, the aid from the Red Cross Societies, the number of satsationary and field hospitals, supplemented by hospital ships, there is every reason to hope and believe that all which can be done for our sick and wounded at the theatre of war will be accomplished effectively and well. War is war; the country is a difficult one, and the undertaking to adequately provide for the efficient working of the hospital service for so large a force operating over an extended sphere is obviously a very arduous one. We can only trust that these things will be borne in mind and that the labours of the medical service will not be subjected to the carping and hasty criticism of a number of irresponsible people imperfectly acquainted with the situation and the facts. That all will strive to do their very best in the work we have no doubt.

The accounts which we have received so far of the prompt aid afforded to our wounded and to those of the enemy after an engagement are satisfactory and not the least gratifying part of them is that the Boers and British and Red Cross workers seem to have fraternised in the good workof searching for and removing the wounded to hospital.

With regard to the feeding and supplies for the army and its hospitals enormous difficulties have to be overcome in a campaign of this character. Transport is one of these, and we hope that the medical service will be amply supplied with transport of all kinds. The pivot on which field medical arrangements depend in modern warfare is transport for the systematic and easy movement of the wounded from the fighting front along the lines of communication to the base. We may call attention to an article which appeared in the *Standard* of Oct. 24th in connexion with the subject of the general arrangements in South Africa for the feeding and supply of the army.

Our casualties have been heavy and very unequally distributed among the corps engaged; those of officers have been disproportionately large. We need give our readers no statistical summary of these, for they have no doubt already read them for themselves in the daily papers.

We are extremely glad to learn that General Symons' condition has somewhat improved. The bullet is said to have been extracted. General Symons is understood to have been wounded in the abdomen, but the exact nature and extent of the injury have not been stated.

(FROM A SPECIAL CORRESPONDENT.)

S.S. *Braemar Castle*, Las Palmas, Oct. 11th, 1899.

THE *Braemar Castle*, of Donald Currie's Line of Cape Packets, left Southampton on Friday, Oct. 6th, carrying to the Cape No. 1 General Hospital, the complement of officers of which is, of course, very short of the regulation number, which will be made up as far as possible as more officers become available. At present the officer-in-charge is Colonel Anthonisz, R.A.M.C., and the officers doing duty are Lieutenant-Colonel R. D. Hodson, R.A.M.C.; Lieutenant-Colonel Grier, R.A.M.C.; Major R. W. Barnes, R.A.M.C.; Major R. W. E. H. Nicholson, R.A.M.C.; and Major F. D. Elderton, R.A.M.C., with Lieutenant Tandy as quartermaster, and a strength of 150 non-commissioned officers and men. It is generally understood on board that No. 1 General Hospital will be stationed at Wynberg, a suburb of Cape Town. There are also on board a lady superintendent and six nursing sisters, who are for duty with No. 1 General Hospital.

The *Braemar Castle* is carrying the complete equipment of the hospital which will be able to get to work if necessary within a few hours of its arrival at its destination. The field hospitals and the remainder of the general hospitals for duty will be despatched at short intervals. During the voyage the opportunity will be taken of inoculating those officers and men who are willing, against enteric fever, a supply of serum having been placed on board from Netley. Lectures on sanitary matters and first aid are being given to the troops and by the time the ship reaches Cape Town everyone on board possessed of ordinary intelligence should be in a position to do something for himself and others in an emergency. The ship is a very comfortable one and the men are healthy and cheerful and all are looking forward to seeing action and service very soon after arrival. I hear that several sets of x rays are on their way out with

specially trained officers and men, and looking back to the excellent work which they were the means of our doing during last year's Nile campaign there is great satisfaction amongst the medical officers at their being within easy reach of these valuable accessories to military surgery.

MINERAL SUBSTANCES IN DRESS MATERIALS.

THE purity of clothing is a requirement of the utmost importance. Dress materials may be injurious because of irritating or toxic substances contained in them or they may be unhealthy because they impede the healthy action of the skin. It has often been supposed that highly dyed fabrics are responsible for dermatitis or even for the poisoning of the system. Instances of blood-poisoning have occurred from time to time which would appear to have been set up by the presence of an injurious dye in a stocking. Certain of the dyes are indeed poisonous, but there is reason for believing that these are seldom now employed for dress materials and especially those which are worn next to the skin. While, however, dyes may not be injurious *per se*, yet certain poisonous agents such as mordants may be used in their preparation. A mordant is a base employed for the precipitation and fixing of the dye. Thus arsenic is largely used in colour making and dyeing and arsenic has been found in small quantity in coloured dress fabrics. Salts of tin, antimony, and aluminium are used for a similar purpose. According to our experience, however, based on the examination of some typical dress materials purchased for the purpose during the last six months, arsenic can seldom be detected in them even in the minutest quantity. This is a very satisfactory result and is doubtless owing to public attention having been very vigorously directed to the matter some years ago.

We purchased 12 different pieces of dress materials at different large drapery establishments in London. They varied in price from 6½*d.* to 4*s.* 6*d.* per yard and comprised all shades of colour. Not one of these specimens proved to contain arsenic, but in the course of the investigation other substances which may be regarded as distinctly foreign to pure material disclosed themselves. The question remains whether these substances of a mineral character can possibly act injuriously upon the health of the person who wears them. Certainly they occur in the fabric in a quantity which on hygienic grounds cannot be ignored, and their character in some instances cannot be regarded as entirely innocent. Amongst the substances found were zinc, aluminium, chromium, tin, magnesium, and iron. The mineral matter obtained on completely burning the cloth consisted practically entirely of one or other of these metallic compounds. The total amount ranged from 0·06 per cent. to as much as 9 per cent. Assuming that on the average some 10 to 12 yards of material of 1¼ yards width are used in making up a dress, or in making the lining of a dress, then approximately 14 square yards of material would be employed. The weight of this dress, according to the size of the material, would vary from three to ten pounds and the mineral matter contained in it from one-tenth of an ounce to as much as nearly six ounces.

We append the actual weights of 14 square yards of material in the cases of 12 typical pieces of cloth calculated upon weighing specimens four inches square. The weight of a dress (or of the lining, as the case may be), assuming it reached the dimensions already laid down, made from material No. 1, would be seven pounds and the weight of the ash 0·32 ounce; from material No. 2, just over nine pounds and the weight of the mineral matter slightly over two ounces; from material No. 3, six pounds and the weight of the mineral matter 0·28 ounce; from material No. 4, 3·77 pounds and the weight of the mineral matter 0·81 ounce; from material No. 5, four pounds and the weight of the mineral matter 0·04 ounce; from material No. 6, 8·58 pounds and the weight of the mineral matter 1·66 ounces; from material No. 7, 6·73 pounds and the weight of the mineral matter 0·12 ounce; from material No. 8, 4·9 pounds and the weight of the mineral matter 2·06 ounces; from material No. 9, 2·7 pounds and the weight of the mineral matter 0·20 ounce; from material No. 10, 3·84 pounds and the weight of the mineral matter 0·12 ounce; from material No. 11, four pounds and the weight of the mineral matter 0·08 ounce; from material No. 12, 3·7 pounds and the weight of the mineral matter 5·3 ounces.

Of the foregoing specimens Nos. 1, 2, 3, 5, 6, 7, and 10 were fairly thick dress materials. Nos. 4 and 9 were cotton lining, No. 8 was Turkey red twill, while Nos. 11 and 12 were flannel. The specimens which yielded mineral substances claiming special attention were No. 2, a material of a fawn colour which was loaded with chromium; No. 6, of a lighter shade but a similar cloth, contained the same metal in very important amount; No. 4, a lavender-coloured cotton lining contained zinc and iron; No. 8, which was Turkey twill, used sometimes for making bathing dresses, contained tin and magnesia; and lastly, No. 12, which yielded an enormous amount of mineral matter, was a pink flannel and proved to be loaded with magnesium chiefly in the form of sulphate.

Some of these materials—as, for example, linings and flannel and Turkey twill—may obviously be worn next to the skin, and should the mineral substances prove to be injurious mischief might be caused in this way. It may be pointed out, however, that the action of mineral substances may easily be accentuated under the solvent influence of perspiration. It is a matter of common observation that the colour of a dress fabric though insoluble in water "runs" readily when moistened with perspiration. Doubtless these metallic salts, with the exception of magnesia, which occurred mainly in the form of sulphate, are contained in the dress fabric in an insoluble state. There is reason to believe that perspiration would dissolve out this mineral matter and thus form a corrosive fluid which might very likely lead to injury to the skin. It is even possible that the corrosive salts of zinc, tin, and magnesium, such as the chlorides, may be formed. The rotting action of perspiration on flannel is in particular well known and it is very probable that this is largely due to the formation of corrosive salts produced by perspiration acting on the mineral substances present in varying but significant proportions in dress materials. Turkey twill is frequently used for making bathing costumes and according to our experiments the material which we examined contained both tin and magnesium. The chlorides of these metals are highly corrosive and the salts in sea-water are calculated to combine with these metals to form the chlorides.

It would thus appear from these experiments, which established the presence in some instances of a comparatively large amount of irritant mineral substances, that not all dress materials are free from reproach as possible sources of injury to health, and further, the presence of mineral substances tends to nullify the important properties of clothing of keeping the body warm and protecting it from the cold, and, above all, of allowing a free passage of air from within and without. It is surprising to find such a range of metallic substances in the dress materials of every-day wear, and the quantities found are no less a revelation.

THE LANCET Laboratory.

HEALTH OF BELFAST IN 1898.

DR. WHITAKER (medical superintendent officer of health for Belfast) has just issued his annual report for the year 1898, and it is a very interesting document, although full of the details of an outbreak of typhoid fever little creditable to such a modern city as Belfast.

During the year 1898 there were 7768 deaths in Belfast and 11,234 births. Of the deaths registered, 2702 (or nearly one-third) were attributed to diseases of the respiratory organs and phthisis (more than one-quarter occurring from the former and more than one-seventh from the latter). A mortality of 1044 from phthisis is appalling, and in addition to want of ventilation and insanitary conditions the heavy impervious soil and the moisture of the air are contributory causes of this fell disease in Belfast. Of the zymotic diseases, out of a total of 7836 cases notified during the year 5136, or nearly two of every three of the total, were due to typhoid fever and the deaths from this preventable disease were 640. While typhus fever was formerly so common in Ireland and while in Belfast, as in other parts of the country, it seems to be dying out, as only 18 cases were notified during 1898, and

of these nine were in one district, it would appear that typhoid fever is always endemic in Belfast; but in 1898 the disease assumed an epidemic type, for in the month of September of that year the number of cases reached the enormous total of 1121, and in one day (August 27th) 80 cases were notified. In the whole of Ireland there were 864 deaths from this zymotic disease—in Dublin 170, in all the other town districts 54, and in Belfast 640. It is really terrible, in these days of sanitary reform, to have to chronicle that in one year—the year 1898—in Belfast, with a population estimated at 340,000, a total of 5136 cases of typhoid fever was reported and that 640 deaths occurred from this preventable disease. Dr. Whitaker mentions certain districts in which the disease was very prevalent as being high, with good air, wide streets, and with a very large number of the houses only recently built, while he points out that District No. 1, on one side of the river Lagan, which is low-lying, with old houses, many of them in a bad sanitary condition and with narrow courts and lanes, seems to have been freest from the disease. Of 3590 houses in Belfast examined by Dr. Whitaker in which the disease occurred 518 had privies and ashpits with back passages for the removal of refuse, 1182 had privies and ashpits without any back passages whatever and the excreta with the other refuse had to be removed through the dwelling-house, and 1890 were houses which had water-closets. Inasmuch as there are some 70,000 houses in the city and that of these nearly 20,000 have privies, it is evident that the disease was much more prevalent in these latter houses than in the former; the proportions would be 3·8 per cent. in the one and 8·5 per cent. in the other. Dr. Whitaker seems to think that typhoid fever is always endemic in Belfast and he quotes Sir Charles Cameron as stating that it is always so in Dublin, where "the disease constantly makes its appearance in houses where no defects can be detected, where the smoke test shows no leak of drain or defect of trap, where the w.c.'s are of the most recent construction, and where the water is taken from high-pressure taps." Sir Charles Cameron comes to the conclusion that in the soil we must look for the endemicity of this disease. This explanation cannot apply to a new city like Belfast. Besides, suppose it be admitted that the endemicity of this disease in Belfast and Dublin is due to states of the soil, it really gives no explanation of the fact that last year there was an epidemic in Belfast, while this year, at the present time, Dublin has so much of the disease. Other conditions must be considered and of these the water-supply and the milk-supply of a city infected with typhoid fever demand examination. In Belfast, as quoted by Dr. Whitaker, Dr. Lorrain Smith, lecturer on pathology in Queen's College, made a most exhaustive analysis of the water-supply and he found colon bacilli in it, these being closely allied to the typhoid bacilli, and these were signs of pollution with animal matter. Further, Dr. Lorrain Smith found that these bacilli were markedly fatal to guinea-pigs, and that a number of them show a connexion with the typhoid disease in patients—that, in a word, these colon bacilli coöperate with the typhoid bacilli in causing the disease. Indeed, Dr. Lorrain Smith's results in Belfast are very similar to those obtained by experts who examined the Maidstone and Paisley water-supply, and they explain largely the cause of the epidemic in Belfast. This cannot occur again in Belfast, as the water commissioners acquired last session an Act of Parliament by which they have power to buy the farms abutting on the streams supplying their reservoirs, and so they will be able to remove any suspicion of the pollution of their water-supply by sewage or other injurious matter. Further, the new water-supply from the Mourne mountains will be available in a couple of years. There appears to be no evidence in Dr. Whitaker's report that the various milk supplies were examined—a matter of great importance, as it is said that this may be the source of part of the present Dublin outbreak. The whole question of the etiology and bacteriology of typhoid fever is in anything but a settled condition, and the results of Dr. Lorrain Smith's further researches on such an important subject will be looked forward to with interest. Certain facts observed are noteworthy. First, no typhoid bacilli were discovered in the Belfast water; secondly, a case of cystitis in Professor Byers's wards in the Royal Hospital, Belfast (reported by the assistant gynæcologist, Dr. Thos. Heuston),[1] shows that a patient may have in her urine and blood the true typhoid (Eberth's) bacillus (giving Widal's reaction) and yet not exhibit the slightest constitutional symptoms (fever, malaise, &c.). Professor Osler of Baltimore has had two similar cases.

Next to typhoid fever diarrhœa caused the largest number of deaths (356) in 1898. There were 54 deaths from measles and 109 from whooping-cough, but as neither of these diseases is compulsorily notifiable it cannot be ascertained how many cases of these zymotic diseases really occurred. 647 cases of scarlet fever were reported, with only 21 deaths, this fact confirming the view of most practitioners that the disease as now seen in Belfast is mild. 291 cases of diphtheria were reported, with 87 deaths—a very high mortality. The disease is increasing in Belfast as in many of the large English cities and towns. Dr. Whitaker again urges the importance of the provision of an infectious diseases hospital, without which it is impossible to stamp out zymotic disease or, indeed, to carry out properly the compulsory notification of disease. Dr. Whitaker's report is full of most interesting information for the medical man, the statistician, and the sanitary expert. The addition of a map of Belfast, in which could be seen at a glance the position of the different districts of the city (there are about 13) described by Dr. Whitaker in pages 6 to 11 of the report, would have rendered it still more valuable.

[1] Brit. Med. Jour., Jan. 14th, 1899.

ENTRIES AT THE MEDICAL SCHOOLS.

IN addition to the list of entries at the various medical schools and universities which we published last week we have received the following:—

St. George's Hospital Medical School: new full course medical students 29, last year 51; new special course students 18; 1 dental student. Westminster Hospital Medical School: new full medical students 18, last year 12; new special course students 26; preliminary science students 7; new dental students 2. Yorkshire College, Leeds: new full medical students 24, last year 24; new special course students 9; preliminary science students 19. At Oxford University 30 new students have entered for medical study.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

On the Sanitary Circumstances and Administration of the Urban District of Ormskirk, by Dr. S. M. COPEMAN.[1]—Ormskirk, with some 6800 population, is an ancient market town about midway between Liverpool and Southport. It was sewered nearly 50 years ago, under the late Sir Robert Rawlinson's direction, and quite recently supplementary sewers for storm water have been provided. The water-supply, belonging to the local authority, comes from a deep well in the new red sandstone and seems free from suspicion. The district council have lately erected a small isolation hospital which in point of construction appears to be satisfactory though its administration seems open to criticism; they have installed an efficient steam disinfecting apparatus; they are now undertaking and improving the public scavenging; and in other ways, notwithstanding sundry defects to which Dr. Copeman draws attention, their general sanitary administration does not seem to contrast unfavourably with that of urban districts of similar size. The problem of housing the poor, of exceptional difficulty in Ormskirk, scarcely seems, however, to have received anything like the attention which the local authority should bestow. There is a large poorer class in the town, principally of Irish labourers, and there is a considerable floating population of tramps. Some 1300 persons of this class live in the numerous courts and alleys off the main thoroughfare. Dwellings in these courts are often of the most miserable and unhealthy character, as they

[1] London, Eyre and Spottiswoode, East Harding-street; Edinburgh, John Menzies and Co.; Dublin, Hodges, Figgis, and Co. Price 6d.

are closely packed together round unpaved or badly paved and badly drained yards, and are damp, and without through ventilation. Privy accommodation is frequently insufficient and in the courts excreta and refuse accumulate in huge privy middens. Overcrowding of persons is common, many occupiers taking in lodgers. In 33 dwellings, for instance, from four to seven persons were found to occupy a single bedroom. Dr. Copeman indicates that at Ormskirk the usual social and moral evils accompanying overcrowding of this sort are abundantly met with. Drunkenness is common, and the resulting crimes have of late been so frequent that the Ormskirk magistrates appealed to the Local Government Board to require the district council to do something to ameliorate the insanitary condition of the courts, which they, no doubt rightly, held to contribute in large measure to the demoralised condition of the poorer population. Dr. Copeman gives (in the form of a table) a summary of the conditions of the courts in the several wards of the town and illustrates by a map—which, by the way, has surely a wrong scale attached to it—one of the worst "slum" areas which he met with. The remedy which he advises is comprehensive action with a view to improving the better courts by providing proper paving, removing all middens, opening through of back-to-back houses, and demolishing houses here and there if otherwise free access of air and light cannot be had. The worst of the courts, however, cannot, in his opinion, be satisfactorily dealt with except by schemes under the Housing of the Working Classes Act. This, of course, means considerable rating, but few readers of the report can doubt the absolute necessity of action at Ormskirk in the sense of Dr. Copeman's advice.

On the Sanitary Circumstances and Administration of the Dore Rural District, by Dr. W. W. E. FLETCHER.—Dore district occupies a wide area, 68,000 acres, in south-west Herefordshire. It is entirely rural in character and has a total population of about 8000 persons. The object of the Local Government Board inquiry was to ascertain the efficiency or otherwise of the system of subdividing the district for health purposes between three medical officers—a plan to which the Board appears to have reluctantly consented for several years in deference to local wishes. Dr. Fletcher reports adversely on the system: each medical officer of health receives only £20 a year for his services, none of the three come into much relation with one another or with the local authority which in consequence fails to get guidance and instruction in sanitary matters, reports are meagre, and in general there is no hint of satisfactory sanitary administration in the district. How far matters are likely to be remedied it is not easy to say. The district cannot afford to pay for the whole-time services of a medical officer of health and combination with neighbouring districts for the purpose of obtaining such an officer—the best solution of the difficulty—is a proposal which local authorities can now scarcely ever be got to favour, and, so far as we are aware, the Local Government Board seldom takes action under Section 286 of the Public Health Act of 1875 to establish such a combination. Dr. Fletcher suggests as a provisional arrangement, failing combination, the appointment of one health officer who would spare a considerable portion of his time from general practice at a salary equal to that now paid to the three present medical officers supplemented by an equivalent grant from county funds. If more than one officer is retained then he advises that there shall be two only with one sanitary inspector at the service of each.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 33 of the largest English towns 6826 births and 4160 deaths were registered during the week ending Oct. 21st. The annual rate of mortality in these towns, which had decreased from 26·8 to 18·6 per 1000 in the eight preceding weeks, rose again last week to 19·0. In London the rate was 18·0 per 1000, while it averaged 19·7 in the 32 provincial towns. The lowest death-rates in these towns were 9·8 in Croydon, 11·5 in Norwich, 13·1 in Brighton, and 13·6 in Swansea; the highest rates were 23·6 in Manchester, 23·7 in Bristol, 24·4 in Salford, and 28·4 in Liverpool. The 4160 deaths in these towns included 457 which were referred to the principal zymotic diseases, against numbers decreasing from 1913 to 436 in the eight preceding weeks; of these, 129 resulted from diphtheria, 103 from diarrhœa, 82 from "fever" (principally enteric), 75 from measles, 35 from whooping-cough, and 33 from scarlet fever. No fatal case of any of these diseases occurred last week in Halifax; in the other towns they caused the lowest death-rates in Croydon, Swansea, Derby, and Manchester, and the highest rates in Portsmouth, Salford, Blackburn, and Sheffield. The greatest mortality from measles occurred in Plymouth, Birkenhead, and Burnley; from scarlet fever in Salford, Oldham, and Burnley; from whooping-cough in Gateshead; from "fever" in Nottingham, Sheffield, Hull, and Gateshead; and from diarrhœa in Portsmouth, Salford, Blackburn, and Preston. The 129 deaths from diphtheria included 60 in London, 14 in Sheffield, 13 in Leeds, six in Birmingham, and six in Liverpool. No fatal case of small-pox was registered last week in any of the 33 large towns, and no small-pox patients were under treatment in any of the Metropolitan Asylums Hospitals. The number of scarlet fever patients in these hospitals and in the London Fever Hospital on Saturday last, Oct. 21st, was 3408, against 2886, 3003, and 3217 at the end of the three preceding weeks; 447 new cases were admitted during the week, against 409, 461, and 455 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 158, 215, and 275 in the three preceding weeks, further rose last week to 308, and were 19 above the corrected average. The causes of 48, or 1·2 per cent., of the deaths in the 33 towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Nottingham, Bradford, Leeds, and in 15 other smaller towns; the largest proportions of uncertified deaths were registered in Liverpool, Huddersfield, Sheffield, and Sunderland.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 17·5 and 18·1 per 1000 in the two preceding weeks, declined again to 17·3 during the week ending Oct. 21st, and was 1·7 per 1000 below the mean rate during the same period in the 33 large English towns. The rates in the eight Scotch towns ranged from 13·8 in Dundee and 14·6 in Aberdeen, to 17·9 in Edinburgh and 18·8 in Glasgow. The 527 deaths in these towns included 26 which were referred to diarrhœa, 13 to measles, 13 to "fever," six to scarlet fever, four to diphtheria, and three to whooping-cough. In all 65 deaths resulted from these principal zymotic diseases, against 112, 97, and 73 in the three preceding weeks. These 65 deaths were equal to an annual rate of 2·1 per 1000, which was identical with the mean rate last week from the same diseases in the 33 large English towns. The fatal cases of diarrhœa, which had decreased from 193 to 31 in the six preceding weeks, further declined last week to 26, of which 16 occurred in Glasgow and four in Dundee. The deaths from measles, which had been 11 and 15 in the two preceding weeks, declined again to 13 last week, and included 12 in Glasgow. The deaths referred to different forms of "fever," which had been 13 and nine in the two preceding weeks, rose again last week to 13, of which seven were registered in Glasgow and three in Edinburgh. The six fatal cases of scarlet fever corresponded with the number in the preceding week and included four in Glasgow. The deaths from diphtheria, which had been six and three in the two preceding weeks, rose again last week to four, of which two occurred in Glasgow, where two of the three fatal cases of whooping-cough were also recorded. The deaths referred to diseases of the respiratory organs in these towns, which had been 61 and 102 in the two preceding weeks, declined again to 84 last week, and were 36 below the number in the corresponding week of last year. The causes of 20, or nearly 4 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 29·2 and 33·6 per 1000 in the two preceding weeks, further rose to 37·3 during the week ending Oct. 21st. During the past four weeks the death-rate in the city has averaged 33·4 per 1000, the rate during the same period being 17·9 in London and 17·6 in Edinburgh. The 250 deaths registered in Dublin during the week under notice were 25 in excess

of the number in the preceding week, and included 64 which were referred to the principal zymotic diseases, against 54 and 68 in the two preceding weeks; of these, 52 resulted from measles, four from "fever," four from diarrhœa, two from diphtheria, one from scarlet fever, one from whooping-cough, and not one from small-pox. These 64 deaths were equal to an annual rate of 9·6 per 1000, the zymotic death-rate during the same period being 1·6 in London and 1·0 in Edinburgh. The fatal cases of measles, which had increased from 14 to 44 in the seven preceding weeks, further rose to 52 last week. The deaths referred to different forms of "fever," which had been four and seven in the two preceding weeks, declined again to four last week. The fatal cases of diarrhœa, which had been 27, 16 and 14 in the three preceding weeks, further decreased last week to four. The two deaths from diphtheria exceeded the number recorded in any recent week. The 250 deaths in Dublin last week included 35 of infants under one year of age and 58 of persons aged upwards of 60 years; the deaths of infants showed a decline, while those of elderly persons considerably exceeded the number recorded in the preceding week. Ten inquest cases and five deaths from violence were registered, and 83, or one-third, of the deaths occurred in public institutions. The causes of four, or 1·6 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

FLEET-SURGEON JOHN TYNDALL is placed on the retired list with permission to assume the rank of Deputy Inspector-General of Hospitals and Fleets.

ROYAL ARMY MEDICAL CORPS.

The undermentioned Lieutenants are seconded for service with the Egyptian Army:—H. E. Haymes and F. J. Brakenridge.

VOLUNTEER CORPS.

Rifle: 2nd Volunteer Battalion the Royal Fusiliers (City of London Regiment): Surgeon-Lieutenant R. C. Gayer resigns his commission. 1st Volunteer Battalion the Royal North Lancashire Regiment: Surgeon-Lieutenant C. S. A. Rigby to be Surgeon-Captain.

INDIA AND THE INDIAN MEDICAL SERVICES.

The services of Major J. W. Rodgers (Bengal) are placed temporarily at the disposal of the Government of the Punjab. The services of Captain A. Grant are placed temporarily at the disposal of the Government of the North-Western Provinces and Oudh for employment on plague duty. The services of Captain H. A. Cooper are replaced at the disposal of the Military Department. The services of the under-mentioned officers are placed temporarily at the disposal of the Government of Bombay for employment on plague duty: Captain H. G. Maxwell, Captain A. C. F. Bouchier, and Lieutenant A. C. Hobson.

TRANSVAAL WAR NOTES.

Sir W. MacCormac, President of the Royal College of Surgeons of England, has intimated to the Secretary of State for War his willingness to proceed to South Africa with Sir Redvers Buller's field force and to place his services and experience at the disposal of the military authorities.

The Secretary of the Central British Red Cross Committee writes to us pointing out that subscriptions rather than contributions of hospital material are urgently needed at the present time. Such things, however, as invalid wraps, socks, felt slippers, and other comforts for the wounded will be gratefully received. Presents of pipes and tobacco will also be appreciated. District committees have not yet been formed but their organisation will be undertaken as soon as the present pressure is over.

Sir John Soundy, Mayor of Windsor, presided on Oct. 21st at a meeting in the Guildhall of Windsor on behalf of the fund now being raised by the Central British Red Cross Committee. Amongst the subscriptions announced was one of £5000 from Mr. William Waldorf Astor. Promises have also been received from Sir F. T. Barry, M.P., and Baron Schröder of donations of 100 guineas each to the Windsor fund, which has now reached the sum of £5700.

THE RECRUIT FROM A DEPOT MEDICAL OFFICER'S POINT OF VIEW.

Lieutenant-Colonel C. M. Douglas, V.C., delivered a lecture at the Royal United Service Institution on Oct. 25th on this subject. He referred to the recruits who enlisted in the north of England and in Scotland as being to a great extent sallow, downcast, nondescript youths, mostly of the workman type. The most cheerful were those who had served in the Militia. Candidates, he said, were carefully examined in respect of weight, height, circumference of chest, lungs and heart, head and teeth; and he remarked that a really good set of teeth was rare, except among agricultural recruits. The minimum physical standard was low: weight, 115 lb., height, 5 ft. 3½ in.; minimum girth of chest, 33 in., age 18 years. The short, muscular, well-formed man would often make a good soldier, and was more active than the big man. The average age of the British recruit was 19½ years; height, 5 ft. 5⅝ in; weight, 126 lb.; girth of chest, 33½ minimum, 35 maximum; right upper arm, 10½ in.; right forearm, 9½ in. The average of rejections ranged from a third to two-thirds. Want and hunger were the invisible recruiting sergeants of a great proportion of our army, and the men were often "black sheep." The effect of drill and discipline on the degenerates in our ranks was great, and on the whole the raw material of the Army was not quite so bad as many pessimists would have us believe.

THE BRITISH ARMY IN 1898.

The general annual return of the British Army for the year 1898, with abstracts for the years 1879–1898 inclusive, have been issued as a Blue Book. The average strength of the Army in England, Scotland, Ireland, and abroad during 1898 was 225,027. Out of this number 122,825 men were serving abroad. The average effective strength of the Royal Army Medical Corps was 2835.

VOLUNTEER MEDICAL ASSOCIATION.

The next correspondence class for the proficiency examination will commence in the third week of November and the lectures about the same time. All information can be obtained from Surgeon-Captain J. Harper, 25, Rosary-gardens, South Kensington, S.W., the honorary secretary for the class.

Some useful work was done with the Roentgen rays both in the Tirah and late Egyptian campaigns, and the *Broad Arrow* very rightly says that it would be interesting to know what arrangements have been made for the use of the x ray apparatus in the present war in South Africa. "Every field hospital," remarks our contemporary, "should have a set and the more that are provided the more lives will be saved and the less suffering will be inflicted on those who are wounded." With this we are in full accord, and it is with great satisfaction that we read in a note from one of our correspondents that several sets of x rays are on their way out to South Africa with specially trained officers and men.

THE HOUSING PROBLEM.—The Conference to be held at St. Martin's Town-hall on Nov. 14th on the question of housing the poor will be presided over by the Bishop of London.

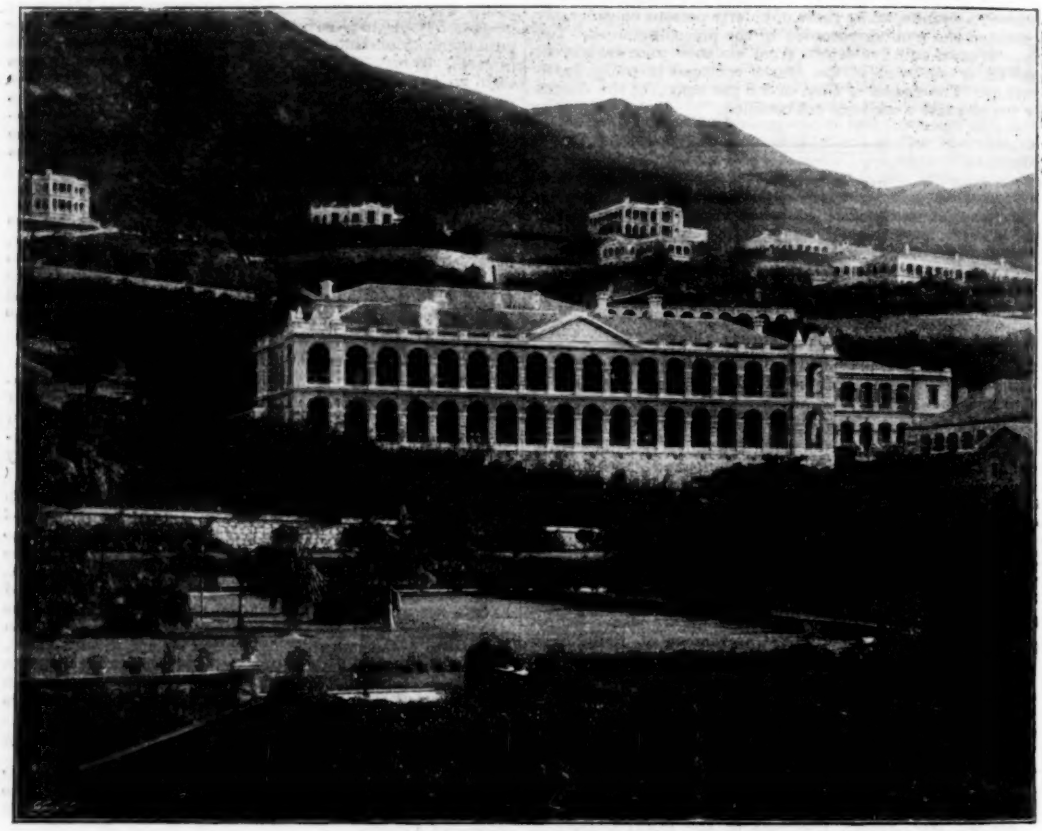
PLYMOUTH PUBLIC DISPENSARY.—The annual meeting of those interested in the Plymouth Public Dispensary was held on Oct. 18th under the presidency of Sir Massey Lopes. The report showed that during the year 3670 patients had been treated, against 3345 in the preceding year. In the provident department there were 112 admissions during the year, an increase of 29, and there were at present 696 names on the books. The expenditure amounted to £1070, as against £987 for 1898. The gross receipts of the provident department were £132, against £128 in the previous year. The annual subscriptions were £367, as compared with £359 in 1898. The income from dividends amounted to £421, and Sir Massey Lopes had contributed £1000 during the past two years. It had been decided to extend the accommodation of the dispensary and new buildings were being erected at a cost of £575. The chairman urged that this being the centenary year of the institution a strong appeal should be made to wipe off the debt of £219.

Obituary.

PHILIP BURNARD CHENERY AYRES, C.M.G., M.R.C.S. ENG., L.R.C.P. EDIN.

Mr. Philip Burnard Chenery Ayres, late colonial surgeon and inspector of hospitals, Hong-Kong, whose death we announced last week, was born at Thame, Oxon, July 13th, 1840, and was the eldest son of the late Philip Burnard Ayres, M.D. Lond., chief medical officer of the Civil Hospital, Mauritius, and formerly Lecturer on Chemistry at Charing-cross Hospital. Educated for the medical profession at University College Hospital, London, and at Edinburgh, Mr. Ayres was from 1865 to 1873 successively acting surgeon of Wandsworth Gaol, staff surgeon of Mauritius Coolie Emigration Service, acting surgeon superintendent and magistrate of Flat Island, health officer and surgeon during the fever epidemic at Port Louis, Mauritius, civil medical officer and superintendent of labour transport in India, surgeon to the Eastern Bengal Railway, civil surgeon, Kooshtea, Bengal, and afterwards civil surgeon, Seebsaugor, Assam.

In 1873, on the recommendation of the Colonial Office, he was appointed colonial surgeon and inspector of hospitals, Hong-Kong, which post he held for 24 years. On his arrival he found that the condition of the colony from a medical standpoint needed serious reform. There was practically no hospital worthy of the name, and the sanitary condition was most unsatisfactory. He at once began and made the first survey of the native town, accompanied by the Surveyor-General (Mr. J. M. Price), which nearly cost them their lives from illness contracted during their house-to-house visitation. The report which followed was the foundation of all the sanitary measures since taken in Hong-Kong. In his report for 1874 he gave a note of warning of what might be expected to happen under the horrible state of things which he described, "Every condition exists for the development of the cholera or fevers of a typhoid character." In this instance it was the plague, which appeared 20 years later—in May, 1894. In this same report he stated: "I was in the colonial service in Mauritius in the fever epidemic of 1867 and 1868 and I sincerely hope I may never see such another, the death-rate at one time exceeding 600 people daily"; but it was his fate to see the epidemic of plague in 1894 in Hong-Kong, which was almost as terrible an experience. It is perhaps from a sanitary point of view that the colony is most indebted to Mr. Ayres. From the moment when he landed in Hong-Kong he was ever urging the importance of the subject and after years of unremitting zeal he was rewarded by seeing many of the reforms which he had recommended carried out; but in the last report he wrote, for the year 1896 (on his retirement in 1897), he stated: "What all my reports could not do the epidemic (plague) has done." The present Civil Hospital, built during his term of office, the nursing staff of trained nurses, from the London Hospital, which he instituted in 1889, and the Sanitary Board, will stand as a lasting memorial to Mr. Ayres in Hong-Kong. We present our readers with a picture of the hospital, a truly fine and imposing building. In 1893 the Companionship of the Order of St. Michael and St. George was conferred upon him, and the *China Mail* referring to this in a leading article stated: "His honourable decoration of the C.M.G. was no empty compliment, because it meant something very similar to the Victoria Cross, from the fact that he fought



The Civil Hospital, Hong Kong

against great odds and was almost alone in his struggle against the abominable condition around him." The following year he had the great satisfaction of receiving a gold medal: "Presented by the Hong-Kong community for services rendered during the plague of 1894." In the same year the Japanese Government, in acknowledgment of the services rendered to the Japanese mission for investigation of the nature of plague, presented Mr. Ayres with a ring having the interesting and suggestive design of two dragons supporting a central ruby. His health began to fail in 1895 in consequence of the great strain and anxiety which the epidemic of the plague brought upon him, and he took, for the first time since he went to the colony in 1873, long leave of one year. He returned to Hong-Kong in 1896, and retired in 1897, his health then giving cause for much anxiety. On leaving he received many valedictory addresses from the Hong-Kong community, the police force, the Chinese merchants, and others, all testifying to the good work which he had done and their appreciation of his skill, devotion, and self-sacrifice in the performance of his duties, and so he left Hong-Kong, the place he loved so well, in which he had made so many friends, and to which he said farewell with the profoundest regret. The colony lost a well-known and striking personality from which it parted with regret; he carried with him the regard, respect, and good wishes of all those amongst whom he had lived so long, and whose well-being he had so much at heart. He was a prominent Freemason, having been Worshipful Master of his lodge, and an officer of the District Grand Lodge of China, besides having taken several of the Higher Degrees.

Mr. Ayres was not able to enjoy his well-earned rest, for on his return to England in 1897 his health became rapidly worse during the two following years, and his many friends in China and elsewhere will see with surprise and sorrow the announcement of his death at Erith on Oct. 12th, aged 59 years. He was interred at Brookwood Cemetery on Oct. 16th.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. L. Defalle, medical officer of the civil hospitals of Liège.—Dr. Schrevens, President of the Tournai Medical Commission.—Dr. Fernando Gonzalez del Valle, who is described by the *Revista de Medicina y Cirugía* as the patriarch of Cuban surgery, at the age of 96 years. He was, of course, educated according to the system and traditions of the first quarter of the century in Cuba when that island was almost isolated from foreign medical science. There were but few books to be obtained, but the lack of these only stimulated him to greater earnestness in studying living books—that is to say, his patients themselves He was fortunate enough to find a colleague endowed with a similar spirit—Dr. Nicolás Gutiérrez. He taught surgery and surgical pathology in the University of Havana for a great many years and many of the best surgeons of the present day remember with gratitude and affection their student days under his auspices. In the days when excision of the breast for cancer and the ligature of arteries were but little practised he made himself a great reputation for such operations, and as a mark of appreciation for his labours he received a portrait of Velpeau with that eminent surgeon's complimentary "dedication." This may be seen in the San Isidro Museum.

THE London Corporation are about to erect a shelter in Golden-lane at an outlay of £10,669 for the use of families whose houses are being disinfected after outbreaks of disease.

WESTMINSTER HOSPITAL MEDICAL SCHOOL.—At the meeting of the School of Medicine Committee on Oct. 18th the following prizes and entrance scholarships were awarded:—Epsom Scholarship, 110 guineas, to Mr. E. H. Bennett Bailey; Arts Scholarship, £40, to Mr. L. White; Oxford and Cambridge Scholarship, £40, to Mr. W. C. Hocken; Science Scholarship, £40, to Mr. P. Farrant; Arts Scholarship, £30, to Mr. W. H. France; "Fish" Prize, £20, to Mr. W. Payne; Midwifery Prize to Mr. W. Payne; Forensic Medicine Prize to Mr. W. Payne; Materia Medica Prize to Mr. E. R. Carling; Practical Chemistry Prize to Mr. T. B. Hickley and Mr. C. Parker; Physics Prize to Mr. O. P. N. Pearn.

Correspondence.

"Audi alteram partem."

THE INOCULATION BY MOSQUITOES OF MALARIAL FEVER.

To the Editors of THE LANCET.

SIRS,—In conversation with another officer I was upholding the common doctrine of the specific origin of fevers as opposed to loose theories of their being due to the climate of the place or the constitution of their victims. "Well, then," I was asked, "how do you explain what happened to me?" I was then told of the experiences of a party from the *Turquoise* at Kilwa Kisiwani in East Africa in 1887. Seven men and three officers were by a misadventure kept on shore one evening till 4 A.M. "We had plenty of food and we built up a great fire and made ourselves as comfortable as we could, but we had a bad time, the mosquitoes were dreadful, and I do not think any of us got a wink of sleep," and so on. Ultimately they regained their ship, which proceeded to Zanzibar, and on passage all the men got fever and were some of them very ill indeed, but the three officers escaped. It was their escape I was asked to explain and at first it did not seem very easy, the conditions seemed so exactly similar for all, and I could at the moment but murmur something about officers being habitually better fed and so more resistant to all disease. But I turned up a book I had by me in which was a discussion of the fevers of the east coast of Africa and there, as I had expected, I found a paragraph in which I had noted that people spending the night on shore were specially liable to contract fever if they slept when ashore. I quoted six cases from different ships reported in various years in the blue-books on the health of the navy and I may be permitted to reproduce from the blue-book for 1887 the official account of my friend's adventure as given by Fleet-Surgeon T. D'A. Bromlow, D S.O., who reports (pp 80, 81) that several attacks of fever were contracted at Kilwa Kisiwani, "seven of these clearly from influences to which they had been exposed while remaining in the mangrove swamps up the river, or rather large estuary there, on the night of June 13th, when one man out of a party strayed and got lost. The boat was sent back for assistance, six men and three officers remaining on the spot. The lost man was found early in the night; the result was that he and the men who remained up the river all suffered from severe attacks of fever within 11 days, but none of the officers. This is interesting, as both men and officers come exactly under the same circumstances as to food, clothing, quinine, &c. The only difference was the officers did not sleep, the men did; there was no great fatigue undergone except in the case of the lost man, and the men lay on, and were covered with, canvas."

Taking the two accounts together I think we may conclude that the officers, whose history on that evening was naturally more accurately remembered by my friend, were so worried by mosquitoes that they could not sleep, being constantly employed in brushing these little pests away and so preventing a satisfactory inoculation, while the men, more tired (up earlier the morning before) or less sensitive, slept and were freely and frequently inoculated. My friend's bitter memory of that night at Kilwa illuminates and explains (in the light of recent observations) my conclusion that malarial fever (which is quite different from the fever in ships) is specially contracted in East Africa not by being ashore at night but by sleeping ashore at night, and the explanation interested him so much that I venture to think it might also interest some of your readers. This mosquito theory may also, I think, be held to gain support from the constantly repeated advice of that very distinguished naval surgeon James Lind who in his book on the Health of Seamen (1779) and in his other works is never tired of emphasising the beneficial influence of the smoke of a fire in the prevention of malarial fever, mentioning as an alternative the fumigation of the hut or tent with gunpowder. Can these influences be of use in any other way than by driving away insects?

I am, Sirs, yours faithfully,

H.M.S. *Tamar* at Hong-Kong, Sept. 22nd, 1899. W. E. HOME.

"THE PREVENTION OF ALCOHOLISM."

To the Editors of THE LANCET.

SIRS,—In his thoughtful paper on "The Temperance Fallacy," published in THE LANCET of Oct. 14th, Dr. Archdall Reid complains that his critics are not always careful to distinguish between acquired *modifications*—that is to say, new characters impressed upon the individual by specific environments—and natural *variations*, characters, namely, which are determined by the nature of the germ plasm contained in the nucleus of the ovum and spermatozoon, and which develop independently of specific environmental influence. I can sympathise with Dr. Reid, for I have been confronted with the same difficulty myself when discussing Weissmann's doctrine with my friends. So long as this confusion exists argument is in vain, and in order to obviate it I would suggest the substitution of the term "moulding" for "modification." The organism is capable of being *moulded* by its environment, and any new character thus arising may be termed an environmental moulding—or more briefly, a moulding. Such characters, Weissmann tells us, are not inheritable but only those characters which depend upon peculiarities of germ plasm and do not require for their development any specific action on the part of the environment. Dr. Archdall Reid is one of the few medical men who seem to realise the tremendous issues involved in Weissmann's doctrine. Those issues, in my opinion, cannot well be exaggerated. I am, Sirs, yours faithfully,

Wimpole street, Oct. 22nd, 1899. HARRY CAMPBELL.

To the Editors of THE LANCET.

SIRS,—Whatever may be the object of Mr. Sidney Vines's letter in THE LANCET of Oct. 21st, it is deplorable that an important subject should be treated in such a manner by one who, it is to be presumed, might be capable of giving a serious opinion. Mr. Vines avoids argument but appears to be overcome by Dr. Reid's suggestion that chronic drunkards might be prevented from procreating children. If, however, he had observed that in pronouncing artificial selection to be the only alternative to natural selection Dr. Reid was making a mere statement of fact Mr. Vines would have seen food for thought rather than ridicule, and would have refrained from writing you a hasty letter, dated as it is on the very day of publication of Dr. Reid's "ten closely printed columns of THE LANCET."

I am acquainted with most of Dr. Reid's writings and feel sure that on this occasion he purposely expresses himself in vigorous language in order to arouse professional interest. If he succeeds the benefit will be far-reaching. Mr. Vines appears to forget that as a profession we are what our teachers make us, and that the subject of heredity is ignored by those who ought to be in a position to explain its principles. In one of the now fashionable medical encyclopædias the subject is referred to; but the author of the article is content to assert his belief in the transmissibility of acquired character without giving reasons and "without venturing to do more than mention the Weissmann logomachy." Is it, then, surprising that we, the rank and file, have hitherto dogmatised ignorantly on the subject? There must be many medical men who, like myself, are thankful to Dr. Reid for so clearly putting the subject before them in his book and in your columns. If at present there are more who understand his premises than follow his conclusions the fact remains to the impartial observer that throughout the long controversy his arguments have met with no answer. Criticism of all kinds there has been, and criticism is of course welcome; but it has been apparently left for Mr. Vines to resort to an attempt to create prejudice.

I am, Sirs, yours faithfully,

H. LAING GORDON, M.D. Edin.

Forest-hill, S.E., Oct. 24th, 1899.

To the Editors of THE LANCET.

SIRS,—Mr. Vines says that my article "was used as a peg on which to hang the writer's contempt for the ignorance displayed in the matter of heredity by his professional brothers." I said nothing about my feelings, but I made certain bald statements of fact. I stated that the teaching of heredity was not included in the medical curriculum and that the subject is neglected by medical men "though by right of our superior knowledge we should have played a leading part in the most important scientific conflict of modern times." The whole article pleaded for a better recognition of, for more precise thinking on, this great subject. But statements of fact are not necessarily expressions of contempt. Does Mr. Vines dispute my facts? Does he assert that the subject of heredity is included in the curriculum and that it is not subsequently neglected by the vast majority of the profession in spite of "their superior knowledge"? If so he will perhaps produce some evidence. He appears to think that one of my motives for writing the article was that people might label me "that most immoral man." He imagines this would tickle my vanity. May I hint to this intelligent critic that in scientific controversy it is not considered "good form" to impute unworthy motives to an opponent? He thinks my proposals about artificial selection are absurd. If only for the sake of argument I will concede that point. It is a matter of opinion, and I confess that I am more interested in the scientific than in the legislative aspect of the question. But I stated that if artificial selection be impracticable then the only alternative is natural selection, in which case every scheme for the promotion of temperance which depends on the abolition or diminution of the alcoholic supply is in effect a scheme for the promotion of ultimate drunkenness. Will Mr. Vines now deal with that statement? I have little expectation, however, that he will. Past experience teaches me that when opponents begin with insinuations concerning feelings and motives they usually end with the discovery that their leisure is too scant to deal with facts and arguments.

I am, Sirs, yours faithfully,

Southsea, Oct. 24th, 1899. G. ARCHDALL REID.

"THE EXPENSES OF A MEDICAL MAN'S MOTOR-CAR."

To the Editors of THE LANCET.

SIRS,—As I am now well on in my second thousand miles of motor running in the ordinary work of a country practice my experience may be useful to those who contemplate keeping one for this purpose. I might almost condense my remarks into a couple of sentences and a quotation, by saying that a medical man's motor-car is very like the well-known little girl, who had a little curl, right straight down the middle of her forehead—that "when it is good, it is very very good, but when it's bad it's horrid." Certainly it was an immense saving of time and fatigue during the terribly trying heat of last summer. How many practitioners, I wonder, were over and over again knocked up by work in that sun? And the immense convenience of not having always to take a man with you, of getting off in about the time it would take to put a collar on a horse, of having no fear of the beast taking cold while you are visiting your patient, and of its not eating except when at its work, are points greatly in its favour. It does not tire, and it will come out afternoon as well as morning, and one day after another, while, as it will carry you from patient to patient much quicker than a horse, it is often possible to get both morning and afternoon rounds done before lunch, and so it leaves one with more leisure.

Per contra, it is given to fits of bad temper and sulkiness, is quite as likely to go lame or its equivalent as a horse, and apparently takes a malicious pleasure in doing one or other of these things just when it is most inconvenient for it to do so. If you are sent for in a great hurry to the squire's wife (a new patient), then it will probably not start. If you are wired for by your nearest professional neighbour to go and help him at once with a case of strangulated hernia it will probably break down on the way. Still, to do it justice these freaks are exceptional and, generally speaking, it does its work steadily and good-humouredly. But it wants constant watching and a deal of looking after. To the family country practitioner living miles away from cycle or motor works and from competent engineering assistance I should say it would be no good at all. As to its much-vaunted economy, well, "I hae ma doots." Mine is a car of foreign make. Perhaps I had better not specify too closely. And a very good little car, too; well-engined, simple, and easy to understand and work, but—and it is a big but—spoilt by a lot of slipshod, bad workmanship, which has been simply exasperating. In my own car I have had to contend with: (1) a driving-lever which will not close the throttle-valve (this is awkward if you meet a restive horse and wish to

shut out gas altogether or to do the same when going down a long hill); (2) a lubricator (?) to cylinder which could not be set to drop oil; (3) a catch to lid over works which would not keep lid shut; (4) chain, "made in Germany," which very soon stretched and became useless; (5) the valve admitting benzoline to carburetter is utterly useless, consequently the supply has to be regulated by tap from tank and indicator inspected every few miles, otherwise the "automatic" valve will very soon stop the car altogether, by either not supplying fast enough or by supplying too fast, and flooding carburetter; and (6) the ball bearings are only such as are used in this country for bicycle work, though the car, without two people in it, weighs something over 9 cwt. These balls want constant watching. Early in my possession of the car I ran it, unknowingly, some miles with a broken ball. Result, loss of services; consulting engineer summoned from town ten miles distant; cab hire to pay while car in dock; and bill from engineer £8 10*s*. Certainly the car is sold "with a guarantee." But it is a guarantee which practically means nothing and which legal advice represents as "not good enough to fight on."

As I know that very many of our profession have been and are seriously considering the propriety of setting up a motor vehicle and doing away with the expensive stable-yard, I have not hesitated to write at length. I may add, "with all its faults I love it still," and I am still driving mine every day. To summarise: (1) If the medical man lives within a mile or two of a competent engineer; (2) if he lives within a mile or two of cycle or motor works; (3) if he is fond of engines and machinery and can manage small fixings for himself; (4) if he lives within half a mile of a cabstand; (5) if he does not take his car more than a mile or so from a railway station; (6) if he has conveniences in his town for getting his batteries re-charged, or can do it himself from primary battery—£3 extra—(on no account let him touch the "tube-ignition" business, at all events without increasing his insurance); (7) if he will see personally that every bearing is kept properly oiled and every grease-pot is properly filled; and (8) if he does not live in a hilly country—he will find a motor-car a great convenience and a great saver of time and fatigue and, perhaps, of money. My car will climb any hill, but where hills are constantly recurring it would be a painfully slow conveyance. To enable prospective purchasers to form an idea as to the amount of outside help required—and this is a very important point—I append a list of dates when I have had to employ outside help since the beginning of July. The wheels *must* come off once a month regularly, otherwise a damaged ball will soon play havoc with wheels and axles. I should say that I had run the car some 300 or more miles prior to the date first mentioned.

July 11th.—Changed battery.
" 12th.—Wheels off; ball broken; new asbestos joint.
" 23rd.—Chain came off.
" 24th.—Chain adjusted by engineer.
" 25th.—Front wheel to works; split cone.
August 4th.—Brake catch broken.
" 11th.—Changed battery.
" 12th.—Chains came off.
" 14th.—Ditto; new chains (English).
" 22nd.—Countershaft off, squeaking.
" 29th.—Changed battery.
Sept. 15th.—Water-tube repaired, leaking.
" 16th.—Changed battery.
" 20th.—Ditto.
" 20th.—Chains adjusted.
" 21st.—Car to works, ten miles off, sundry repairs.
" 22nd.—Ditto. New belt. Had been in a bit of a puzzle here. Car would not take high-speed belt. Found at last that carrier did not carry slow-speed belt off working pulley, consequently on putting on fast speed I was industriously trying to run the car at two speeds at the same time—with unsatisfactory results.
Oct. 3rd.—China insulator worked loose; just managed to get car home. New insulator.
Oct. 8th.—Changed battery.
" 10th.—Exhaust spring eased.
" 17th.—Changed battery; cells out of order.

Many of these troubles will, no doubt, grow less frequent with increased experience. Meanwhile any medical man who is prepared to diagnose and treat these troubles as they arise will find a motor-car a great convenience.

I am, Sirs, yours faithfully,
HARRY LUPTON, L.R.C.P. Lond., M.R.C.S. Eng.

Stratford-on-Avon, Oct. 23rd, 1899.

To the Editors of THE LANCET.

SIRS,—I was away from home at the time your annotation on my letter in the *Autocar* appeared or I would have written myself. Mr. Seyd has, however, pointed out the error. It is quite correct that the new car has improvements which I have added to mine—i.e., Connolly's tyres and, I believe, English chains. I find on working it out that the cost per mile has been one penny and a fifth, or, including breakages—i.e., axles, &c. (not due to "steeple-chasing")—one penny and three-fifths; anyhow, under twopence. I have found the car very reliable and have only twice been unable to drive it home from causes which were not my own fault.

I am, Sirs, yours faithfully,
Oct. 24th, 1899. A. CHARPENTIER.

"WHO PAYS LUNACY FEES?"

To the Editors of THE LANCET.

SIRS,—I think that there are some errors in your editorial note to a letter on the above subject in THE LANCET of Oct. 21st, p. 1125. I have never received an order made by a magistrate for a fee to be paid by the guardians. The practice for many years in the union of which I have a district was for the relieving officer to issue an order, marking it "Lunacy," and this was paid (in the event of the patient being certified a lunatic) with the quarterly accounts, the amount being 10*s*. 6*d*. Within the last 12 months, however, an alteration has been made, and now the relieving officer hands me the fee, 10*s*. 6*d*., taking a receipt, at the time of examination and removal.

As far as I know, the usual fee for examining and certifying pauper lunatics is 10*s*. 6*d*., and unless a medical man is called in by the relieving officer or receives an order from a magistrate his claim for fees, usually £1 1*s*. upwards, would be against the relatives of the lunatic.

I am, Sirs, yours faithfully,
Brentwood, Oct. 22nd, 1899. J. R. WHITE, M.B. Dub.

*** It has always been the practice, even prior to the Lunacy Act of 1890, that the clerk to the guardians can only pay the medical man's fee on receipt of the justice's order. The justice or magistrate usually signs this with the other papers brought to him by the relieving officer, who takes it direct to the clerk to the guardians. That is probably why our correspondent has never seen these orders, but without these the clerk cannot pay the fee. It is very undesirable that the medical man's fees should be paid through the relieving officer. The clerk generally pays them quarterly when one practitioner is employed for most of the cases. But our correspondent's most serious misapprehension is comprised in the words which he encloses in brackets. The medical man's fee is for "*examining and reporting*" on a case of alleged lunacy, not for certifying him or her as a lunatic. Whether he reports the patient to be sane and he is discharged, or insane and he is removed to an asylum, matters not at all, the fee is payable all the same. Finally, as regards the amount of fee for pauper cases or for cases which "for the purposes of this Act may be deemed to be pauper," it rests entirely with the justice to order whatever remuneration he may think fit. The usual sum, as we have said, is one guinea but it varies from half a guinea to two guineas. Possibly our correspondent has misapprehended the lunacy procedure in his union, but if not the matter should be inquired into.—ED. L.

NAPPER'S FLYING HOSPITAL.

To the Editors of THE LANCET.

SIRS,—My attention having been drawn to a paragraph in THE LANCET of Oct. 21st referring to Sir John Furley's hospital train I wish to state that the idea of converting railway carriages into moveable hospitals for use in time of war or of epidemics originated with my husband (the late Albert Napper of Cranleigh, Surrey) during the Franco-Prussian War. This you may learn on reference to the *Engineer* of Sept. 16th, 1870, which gives a description, with illustrations, of "Napper's Flying Hospital" and "Napper's Ambulance." Owing to want of funds my husband could not start a full-sized hospital, but a working model was on view in 1878 and following years at the United Service Institution in London, and I still have the model and all his plans for the same.

Without in the least wishing to detract from the credit

due to Sir John Furley for his many useful and humane inventions I must beg of you, in fairness to my dear husband, to give this letter a place in the next issue of THE LANCET.

I am, Sirs, yours faithfully,

Guildford, Oct. 24th, 1899. SARAH NAPPER.

CANCER IN WILD ANIMALS.

To the Editors of THE LANCET.

SIRS,—In reviewing my article on the Pathology of Cancer in Vol. XVII. of the "Twentieth Century Practice" reference is made to a statement therein that "in the animal world it is only the domesticated that are affected; in a state of nature these diseases are unknown." With regard to this the reviewer says: "This statement is hardly borne out by facts, for though malignant disease is rare in wild animals it is certainly found." In reply to this I beg to state that I have never met with a single instance of cancer in any wild animal in a state of nature, and I know of no duly authenticated case of the kind that has ever been recorded in the literature of the subject. It is, of course, well known that wild animals that have been kept long in confinement may be thus affected, but such cases are beside the question. Therefore, unless your reviewer is prepared to substitute his dictum by some kind of proof I must stigmatise his statement as erroneous and ask him to withdraw it.

I am, Sirs, yours faithfully,

Clifton, Oct. 21st, 1899. W. ROGER WILLIAMS.

*** In the passage which we quoted from Mr. Roger Williams's article the statement was made that only domesticated animals are affected with malignant diseases and it was to this statement that we took exception, but now Mr. Williams appears to claim that wild animals which have been kept in confinement are "domesticated." With this opinion we really cannot agree. In the *Journal of Anatomy and Physiology*, 1884, page 464, an account is given of a carcinoma in a python. May we presume that Mr. Williams considers this reptile to be a "domesticated" animal? When we consider how very few necropsies are made by scientific men on the bodies of *ferœ naturæ* we need feel no surprise that very few cases of malignant disease in these animals have been recorded. It is therefore utterly unscientific to attempt to found any general rule on such scanty data.—ED. L.

THE ORGANISATION OF THE PROFESSION.

To the Editors of THE LANCET.

SIRS,—The article on "The Organisation of the Profession" in THE LANCET of Oct. 21st demands a short reply from me, as I am the honorary secretary of the Conference Committee of the Manchester Medical Guild. You make two suggestions with which I cannot agree, viz., that the Medical Guild should postpone its proposed conference until after the International Congress of Medical Ethics at Paris and that we are trying to compete with that congress. I may say at once that we have not the slightest intention of offering any competition or opposition of any kind, neither do I see how the holding of our proposed conference can be construed into competition. The question of representation at the International Congress will be considered at the quarterly meeting of the Medical Guild on Friday next and I feel sure delegates will be elected to attend. I shall bring the matter before our local medical society at Ashton-under-Lyne with perhaps a similar result. I feel confident, too, that the proposed conference, if it is held, will also elect delegates, so that it ought to be a source of strength to the International Congress and not of weakness. So patent is this fact that to my mind it constitutes a very good reason for our conference being held before, and not after, the International Congress, for the more thoroughly organised each section of the latter is, and the more efficiently each country is represented at it, the more successful it will be and the greater good it will do. The natural method of growth also is from national to international and not the reverse. Under these circumstances, therefore, I contend that if we can get a sufficient number of societies represented it will be the wisest course to act as we have already intimated and hold our conference next spring.

I trust we may still count upon the good offices of THE LANCET. The articles that have appeared in it from time to time have given a great impetus to medical organisation and I fancy that in the near future they are about to bear fruit. There seems to be all over the country at the present time a greater activity in this direction than has ever been apparent before and I feel that we may look confidently for some efficient steps of one kind or another being taken at no distant date. I am, Sirs, yours faithfully,

S. CRAWSHAW, M.B. Vict.

Ashton-under-Lyne, Oct. 25th, 1899.

*** We publish Dr. Crawshaw's letter with pleasure.—ED. L.

PRACTICAL PATRIOTISM.

To the Editors of THE LANCET.

SIRS,—I beg to suggest that the medical profession (always a patriotic body) should, to show their high appreciation of the brave fellows now fighting for the honour of their country, attend their wives and families free during their absence and on the return of the reservists to civil life that they also should be treated free.

I am, Sirs, yours faithfully,

Oct. 25th, 1899. ROBT. HUGH HODGSON.

THE ORGANISATION OF THE PROFESSION.

(FROM OUR SPECIAL COMMISSIONER.)

(Continued from p. 982.)

The Ashton-under-Lyne and District Medical Society.—The Youngest Practitioners successfully take the Initiative.—Elaborate Rules on Medical Etiquette.—Unanimous Support.—Proposed Congress of British Practitioners.

ASHTON-UNDER-LYNE is an important manufacturing centre close to Manchester with a population of about 80,000 inhabitants, belonging almost exclusively to the working classes and to the small trading class that caters for the working men and their families. The Ashton medical men therefore cannot expect to build up high-class practices. Their income depends largely on small fees and it is consequently more necessary than is usually the case that those who can pay such fees should not escape from this obligation. The working classes here, as in so many other industrial centres, have learnt to appreciate the advantage of organising trade unions to keep up the highest possible rate of wages and of distributive coöperative societies so as to secure the utmost purchasing power for the money earned. The spirit of organisation might also be directed to the organisation of medical aid in a manner that would unfairly reduce the incomes of the medical practitioners. The latter, therefore, felt that it was also necessary to defend themselves and that by the only effectual means available—namely, by organisation. As a rule the initiatory steps to form such an organisation are taken by leading members of the profession whose influence is likely to attract a large following. The very reverse was the case at Ashton. There was no medical society, or guild, or union, or medical and chirurgical society at Ashton, and the need of some such organisation was first felt by a few of the youngest members of the profession. They met and talked the matter over. Their ideas, at first vague, gradually began to take form and at length crystallised into a definitive project. One among them finally offered to convoke a general meeting of all the local practitioners and with the approval of his friends sent out circulars to this effect. The meeting took place in the mayor's parlour at the town-hall. 20 or more local practitioners attended and some came from the neighbouring districts of Stalybridge, Dukinfield, Denton, and Mossley. In these districts there are about 50 medical practitioners. The result of the first meeting was the adoption of a resolution in favour of the formation of a society to deal with economical and ethical questions affecting the interests and standing of the profession. A committee was forthwith appointed to prepare a project of rules and the practitioner who had sent out the circulars of invitation was elected honorary secretary of the society. All this preliminary

work was completed nearly two years ago. The Ashton-under-Lyne and District Medical Society was officially constituted and a dinner to celebrate the inauguration of this society was given in January, 1898. The society now consists of 42 members and nearly all these members joined from the beginning. Therefore very little propaganda work had to be done. The members of the profession were evidently ripe for the movement. How many other districts are there in England equally ready and only waiting for someone to take the initiative? The example set by the practitioners of Ashton is most encouraging. Why should other towns wait? More efforts of the same description should be made if only to test whether the local practitioners are ready. The objects of the newly formed society are set forth in the book of rules, or the "Book of Laws and By-laws," as it is somewhat grandiloquently called, and are as follows:—

(*a*) To promote a brotherly feeling amongst the members of the profession in Ashton-under-Lyne and district and to band them together for the better protection of their interests.
(*b*) To hold meetings at suitable intervals for the reading of papers on, and discussion of, medical and medico-ethical topics.
(*c*) To fix a minimum scale of fees and promote some means to ensure greater promptness on the part of the public in the payment for medical services rendered.

But few medical societies, of which a large number exist throughout the country, have so definite a programme. The vast majority of medical societies are more like social clubs. Some of them are very exclusive. The members meet to read purely scientific papers. If ethical questions are discussed this is quite an exceptional circumstance, and when such questions become very prominent it often happens that the medical societies form another society with a separate and distinct name, set of rules, and administration, such as the Wigan Medical Guild formed by the Wigan Medical Society, or the Nottingham Medical Union formed by the Nottingham Medical Society. For a new sort of organisation, with objects differing from those of the older societies, a new and distinctive name should be employed. Therefore some confusion and misunderstanding would have been avoided if the word "guild" or "union" had been employed at Ashton instead of the word "society." Thus, in most of the old-established medical societies a member to be elected must occupy a social position similar to that of the other members, whereas at Ashton it suffices that he should be a fully-qualified practitioner who is willing to observe the rules and who is proposed and seconded by members of the society. For club and dining purposes social restrictions are necessary; for a union or guild it is, on the contrary, most essential to recruit members of the profession from every rank of the social scale. The poorest, the least favoured practitioners, are of course the most ready victims of the medical aid insurance companies, or they may become "sixpenny doctors" if this tendency is not counteracted by the influence, the help, and the discipline of a medical union. And, indeed, the Ashton Medical Society stipulates that its members shall sign the following declaration:—

I promise to conform to the rules and code of etiquette of the Ashton-under-Lyne and District Medical Society and to such other of its regulations as shall from time to time be legally made so long as I continue a member thereof.

This is not at all the sort of rule likely to be framed for the government of a social club, but it is the basis of a union constituted to fight out economical questions.

The annual subscription is half a guinea and there is an entrance fee of 5*s*. The society is governed by the president, four vice-presidents, treasurer, secretary, and six other members, all to be elected annually. The society meets at the town-hall on the evening of the second Friday of each month. Papers are then read which have been previously approved by the committee and a general discussion follows. No proposition can be put which has not been announced on the circular convoking the meeting. Medical practitioners, medical students, and members of learned societies are admitted as visitors, and the annual meeting takes place on the second Friday in January. But what are called the by-laws are more interesting than these general rules. Thus a practitioner who does not observe the following rules cannot be elected a member of the society and any member who breaks these rules can be expelled:—

1. No member shall solicit private practice either by advertisement circular, card, placard, or by making payments or presents to nurses, midwives, or other persons.
2. No member shall be proprietor of, or in any way derive advantage from the sale of, any patent or secret specific.
3. No member shall give testimonials in favour of any patent or secret specific or in any way recommend its public use.
4. No member shall enter into a compact with a druggist to prescribe gratuitously and at the same time share in the profits arising from the sale of the medicines.
5. No member shall keep an open shop.

Then there are disciplinary measures so as to ensure the application of the rules of the society. Thus no member is allowed to meet in consultation any unqualified person or any qualified practitioner who does not observe the above five rules or any practitioner who has been expelled from the society. We now come to the somewhat thorny question of etiquette; but the Ashton Medical Society has not shrunk from the responsibility of dealing in a somewhat elaborate manner with this problem. First, it seeks to protect the members of the society against groundless charges of malpraxis by insisting that no member shall give expert evidence against a fellow-practitioner without first bringing the facts of the case before the society and obtaining its approval. Thus a medical practitioner should not damage a fellow-practitioner by the evidence he may give to a court of law on his own responsibility. He shall only act in this sense when other fellow-practitioners approve of such a course of action.

The society next deals with the question of punctuality at consultations and says that the first practitioner to attend may proceed with the case alone after waiting 20 minutes beyond the appointed time. With regard to any change of the treatment the most scrupulous care must be taken to avoid reflection on the previous treatment, which must in no instance be openly condemned. Unless it be a case of emergency a member should decline to attend another practitioner's patient except in consultation, or only after the first practitioner has been duly informed by the patient that his services are no longer desired. If, during sickness, affliction, or absence, a member has entrusted his practice to a professional friend the latter shall not make any charge to the former or to the patients, but act in all respects as if he were the locum-tenent. If a member is called during an emergency to attend the patient of one of his colleagues he shall retire as soon as he has provided for such emergency, unless expressly requested to continue the attendance by the patient or his friends. When a practitioner is called to see a patient whom he has already attended as the locum-tenent of a friend he must be careful to inquire whether he has been sent for in consequence of the accidental absence of that friend, and in that case act accordingly and merely as a substitute, making no charge. But if a patient, in the absence of his regular medical attendant, instead of accepting the services of the officiating friend, selects some other medical practitioner, the last-named shall also consider himself merely as a locum-tenent and make no charge to the patient or to the patient's regular medical attendant. Further, if a practitioner is asked by the assistant or servant of another practitioner to attend an accident or other emergency occurring to a patient who was unknown to both the practitioners, then the practitioner sent for, and not the one who took his place, shall have charge of the case. There is also a rule with regard to "officious interference." This is described in the following manner:—

It frequently happens that a medical man may have the case of another practitioner stated to him in so direct a manner as to render it difficult to decline any attention to it. Under such circumstances his duty is to avoid, as far as possible, any expression of opinion.

With regard to the battle of the clubs and other forms of contract work there are two rules:—

If any member of this society, being an official under any public authority, institution, or club, have any dispute with such authority, institution, or club, the matter shall be laid before, and considered by, the society within a week, and if the society consider that the member is in the right, then no member of the society shall apply for or accept the post should it become vacant in consequence of such dispute. While this association does not propose to interfere with the medical relief part of friendly societies of artisans and operatives, it enacts, at the same time, that no member, being a candidate for the office of surgeon to a club or friendly society, shall, by canvassing, treating, or other undue familiarity, solicit the votes of its members.

One of the first questions discussed when the Ashton Medical Society was formed was the advisability of the members attempting to start a medical provident society. At Denton every practitioner runs a club of his own in opposition to the Denton Provident Medical Aid Dispensary. This latter is managed by a lay committee. Publicans and other well-to-do tradesmen belong to it. The lay committee have made sufficient profit out of the medical men in their service

to build a surgery and a dispensary and to engage a caretaker. The medical officer whom they employ is paid a regular salary and is allowed to have private practice, but there is hardly any private practice to be had. The Ashton Medical Society drew the attention of the General Medical Council to the position of this medical officer. They showed that the Denton Provident Medical Aid Dispensary published an annual report which mentions the name of their medical officer and relates the number of visits he has paid to patients, &c. This, they complained, was a sort of advertisement. Further, a dispenser was employed whom the patients consulted and who sometimes even paid visits to the patients. The General Medical Council considered the case proved but have not yet given their final decision.

In view of this state of affairs Dr. S. Crawshaw, secretary of the Ashton Medical Society, proposed to found a society which should be called the Medical Aid Branch of the Ashton-under-Lyne and District Medical Society, so as to provide medical aid to persons unable to pay the ordinary fees. Of course, this society was to be managed exclusively by members of the Medical Society and a wage-limit would be strictly enforced. At Ashton, however, the local practitioners have no private clubs of their own and there are hardly any other sort of clubs. Indeed, one of the rules of the Medical Society stipulates that no member shall in future be permitted to form a private sick club. The Pleasant Sunday Afternoons Society has a medical aid fund and there is also a society called The Board, but these organisations have not many members. As the club grievance thus barely exists at Ashton the Medical Society thought that the question had better be left alone. If the local practitioners started a medical aid society of their own it might be the means of introducing clubs into the district. The project, therefore, when put to the vote, was not accepted. It was decided, on the other hand, to adopt as a rule that if any society or workshop sought to form a sick or accident club the matter must be brought before the committee of the Medical Society who should decide on the terms before allowing any of its members to become the medical officer. The Medical Society was, however, able to agree on a minimum scale of fees which is embodied in the rules. The ordinary visit is 1*s.*, but medicine is charged for at the rate of 2*s.* 6*d.* for the six-ounce to eight-ounce bottle and of 2*s.* for the three-ounce to four-ounce bottle; visits at night from 9 P.M. to 9 A.M. 2*s.* 6*d.*, and advice without medicine 1*s.* 6*d.*; dressings 1*s.*; consultations with a practitioner 5*s.*, with a consultant 10*s.* 6*d.*; and midwifery fees, if paid within the month, 15*s.*, otherwise a guinea, and a guinea if the case is protracted or difficult. Vaccinations are not to be included in the midwifery fee and are to be charged for at the rate of 1*s.* 6*d.* each. Accident clubs are not to be constituted under 4*s.* per member per annum, and sick clubs under 5*s.* Operations are set down according to the scale of the Poor-law Board from £1 for dislocations and fractures of the arm to £5 for compound fractures of the thigh, amputations of the leg, and strangulated hernias. For the administration of chloroform 10*s.* 6*d.* is charged. It was also proposed that the charges for medicine might be reduced in exchange for cash payment, but that matter has not yet been decided. When a collector has to be employed for the payments then an additional charge of 10 per cent. may be made to cover his commission.

Armed with these rules the Ashton Medical Society has been able to settle amicably many disputes that arose between local practitioners; and apart from attending to such business time has also been found for the reading and discussing of scientific papers. On one occasion a member of the Manchester Medical Guild gave a lecture on Medical Organisation. This was followed by the adoption of a proposition in favour of holding an annual conference or congress of general practitioners for the purpose of discussing the best means of organising the members of the profession. The Manchester Guild was petitioned to take this matter in hand. Consequently, at the last quarterly meeting of the Manchester Guild Dr. Crawshaw, on behalf of the Ashton Medical Society, proposed:—

> That the council of the Medical Guild be requested to consider the best way of organising the profession with a view to the holding of an annual conference of delegates from various medical societies dealing with questions which specially concern general practitioners; such organisation to be somewhat on the lines of the National Union of Teachers. The council also to draft a scheme for submission to such a conference.

This motion was adopted and the council of the Manchester Medical Guild appointed a sub-committee to consider the project. They decided to draw up a circular letter and to send it to all existing societies, but they are face to face with the same difficulty to which allusion has been made in these columns.[1] There is no complete list and no means of ascertaining the names and addresses of all existing societies that deal with economical questions affecting the medical profession. It is to be hoped, therefore, that the secretaries of such organisations will continue to forward their addresses to THE LANCET Office, and they will be held at the disposal of the Manchester Guild, as also of the French committee now organising a similar but international congress which will meet under the patronage of the French Government in Paris next year.

In conclusion, it is only necessary to add that the work of organisation in the Ashton district has prospered. With the exception of the medical officer in the service of the Provident Dispensary every practitioner in Denton has joined the Medical Society. At Ashton itself there is but one practitioner who stands aloof. At Dukinfield every practitioner without exception is enrolled a member, and there are only two or three practitioners at Stalybridge and Mossley who have not joined.

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

The Treatment of Snake-bite.—Mortality in India.—The Increase of Plague.—Subsoil Drainage and Plague.—The Special Plague Medical Officers and Nurses.—Riots at Kolhapur.

ARRANGEMENTS for the more extended treatment throughout India of snake-bite by means of anti-venomous serum will probably be made on the recommendation of Major R. M. S. Lyons, I.M.S., who was deputed by the Secretary of State for India to visit the Pasteur Institute and to report on the experiments made there. The method of applying the treatment is as follows. The member bitten is first bound tightly by means of a string or handkerchief as close as possible to the bite and on the proximal side of the wound. The wound is then to be washed with a fresh solution of hypochlorite of lime diluted to about 1 part in 60 parts by boiling water. A dose of the anti-venomous serum is next injected into the subcutaneous cellular tissue of the flank. In addition, an injection of the hypochlorite of lime should be made in the track of the bite and around it in three or four places with the object of destroying any venom which may not have been absorbed. The ligature can then be removed, and it is recommended that the sick person be rubbed, given tea or coffee to drink, and covered up warmly so as to cause sweating. It is pointed out that cauterising the bite is useless and that ammonia or alcohol would be injurious with the above treatment. At present the serum is very expensive, as 20 cubic centimetres, the dose for an adult, cost about 4*s.* The efficacy of this form of treatment is now fairly well established, so that every important station and hospital throughout India ought to be provided with the serum. The total returns for the whole of India show 21,901 deaths from snake-bite last year.

Large numbers of emigrants (estimated at 10,000) from Kathiawar have arrived in Bombay in consequence of famine in that district, but arrangements have been made for sending back the majority. These famine-stricken people have encamped on the various available open spaces, but with plague lingering in the city the danger of a fresh development of this disease is considerable. As a precaution all the men, women, and children encamped on the Esplanade have been inoculated and each has received 8 annas.

A further great increase has taken place in the mortality from plague. There have been 5702 deaths recorded for last week as compared with 4977 the week previously. The increase is almost entirely in the Bombay Presidency, which accounted for no fewer than 5178. The Mysore State had 195 deaths from plague, Hyderabad 148, Calcutta 51, Central Provinces 35, and the Madras Presidency 12.

Wonder has been expressed that the present outbreak in Poona should be so much more virulent than its predecessors seeing that the sanitary condition of the town has been

[1] Vide letter from Dr. Crawshaw published in THE LANCET of Sept. 16th, 1899, p. 805, and special article in THE LANCET of Oct. 21st, 1899, p. 1126.

greatly improved. It is a curious fact that the three chief towns affected by plague—viz., Bombay, Karachi, and Poona—should be those in which a full water-supply has been provided but without any simultaneous provision being made for subsoil drainage. It is said that in all three towns the subsoil is saturated. It has been observed for some years that the health of these cities instead of improving has been getting worse. That this should have occurred concurrently with the saturation of the soil and the rise in the level of the subsoil water is not to be wondered at, but the connexion with plague is not so clear. Each of these cities has been three times severely attacked. The soil of Calcutta is equally water-logged and yet the amount of plague there has been comparatively very small, so that some additional factor is apparently wanting to explain the selection of these three cities for the disease.

At Poona more Europeans have been attacked and Captain Tyler, R.A., has succumbed to the disease. The outbreak, though rapidly subsiding in the city, is still very severe in the districts around. The deaths registered in all Poona from June 1st equal the total number of plague cases registered in all previous outbreaks put together. From June 1st to Sept. 30th there have been recorded 12,400 cases, with 9795 deaths—a mortality rate of over 78 per cent.

More medical men and nurses have been obtained for plague duty. Nine doctors and 21 nurses arrived on Sept. 30th and another party are on their way out. It is reported that they will be met by the officials of the Indian Medical Service and taken to the Secretariat, Bombay, where arrangements had been made for them to be entertained by His Excellency the Governor. This is quite a new feature and the fresh arrivals may think themselves fortunate. The increase of pay now offered to medical men may attract a larger number, but I have always understood that the grievances of those who have returned to England were with regard to the unsatisfactory position and duties assigned to these medical officers and not in respect of the amount of pay. When highly qualified Englishmen find themselves posted to duties concurrently with third-rate native hospital assistants their sense of dignity is wounded. Some improvement in their status has been made since the early period of the plague and the above-mentioned reception may perhaps indicate that the authorities now recognise that the special plague medical officers from England hold as high a professional standard as officers in the services.

Troubles connected with plague administration are continually cropping up. For some time there has been serious discontent with the plague measures carried out at Kolhapur. Matters culminated on Sept. 27th with serious rioting and the wrecking of the residences of two plague medical officers as well as the firing of part of the plague hospital. About 3000 malcontents assembled and marched to the plague hospital. On the way they wrecked the two medical officers' houses and on reaching the hospital smashed the dispensing room and set fire to those portions of the place in which there were no patients.

Oct. 5th.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Water-supply of Liverpool.

THE total quantity of water supplied for the year ending Sept. 30th, 1899, to 168,348 tenants from the Liverpool waterworks was 9,564,514,000 gallons, an increase of 650,510,000 gallons over the quantity supplied last year. Systematic bacteriological examinations of the water have been made by Professor Boyce for the last twelve months. In addition to the regular fortnightly examinations there have been special examinations during the year to test the working of the filter-beds at Rivington and Oswestry, also to show the effect of storage in the reservoirs around Liverpool. Examinations have also been made of water standing in the dead ends of mains under conditions which did not permit of constant movement. Altogether nearly 600 bacteriological examinations had been made by Professor Boyce since his appointment as bacteriologist to the City Council. These investigations have also been of considerable value in affording information as to the efficiency of filtration and distribution under the varying conditions that obtained in practice. The Liverpool City Council were the pioneers in this country of the systematic bacteriological examination of a water-supply and they have been most fortunate in having the advantage of the resources and scientific skill available in the pathological department of University College. The general conclusions to be deduced from the investigations of the year were that the water supplied to the citizens of Liverpool was unsurpassed in quality and was throughout all seasons absolutely free from pathogenic germs.

The Increase of Infectious Diseases in Liverpool.

At the last meeting for the municipal year of the Port Sanitary and Hospitals Committee of the City Council held on Oct. 19th some startling facts were enunciated by the chairman (Dr. Thomas Clarke) as to the increase in Liverpool of scarlet fever, measles, diphtheria, and typhoid fever. The number of cases of typhoid fever reported during the year was 718, as against 541 in the previous year. In reference to diphtheria the number of cases reported had increased from 327 to 575. In the opinion of the chairman the want of hospital accommodation and the delay thereby entailed in removing patients from crowded dwellings had not only been accountable for the extension of disease, but had also been the causes of a greater mortality. Having regard to this forcible pronouncement, with the *imprimatur* of the medical officer of health no doubt upon it, a heavy responsibility rests with the Health Committee in hastening the extension of hospital accommodation for infectious diseases.

The Rating of Liverpool Charities.

An influential deputation representing 39 local charities waited upon the Finance Committee of the City Council for the purpose of placing before the committee the hardships inflicted by the incidence of taxation upon charities, including the hospitals, which are sorely pressed for funds for the discharge of current expenses. The deputation pointed out that hitherto those charities had been assessed by the bench of magistrates at *nil*, but they were now called upon to pay £800 a year in poor-rates and £1700 a year in city rates; that the Corporation of Derby had obtained an Act of Parliament empowering them to remit the rates on buildings used for charitable purposes; and that the Corporation of Liverpool might seek for similar powers. Moreover, the corporation itself derived, through its employés, considerable benefit from the public charities which every year treated a number of cases of injuries, especially to tramway employés and police constables, without receiving one penny from the corporation. The remission of rates to the charities would only make a difference of one-eighth of a penny in the pound. The chairman of the Finance Committee, in reply, said that the committee sympathised with the charities, but that in the absence of statutory powers they could do nothing. It was pointed out by the chairman of the committee that upon appeal to the magistrates the charities could be excused from payment of the rates on the ground of poverty.

The Biennial Dinner of the Liverpool Medical Institution.

The biennial dinner of the Liverpool Medical Institution took place on Oct. 21st at the Exchange Station Hotel, Dr. William Macfie Campbell, the President, being in the chair. The guests included the Lord Mayor, Mr. A. Warr, M.P., the stipendiary magistrate, the city coroner, the chairman of the Northern Hospital, the chairman of the Royal Southern Hospital, &c. Principal Glazebrook, F.R.S., of University College, was unfortunately prevented by illness from being present. The toasts of "The Queen," "The City of Liverpool," "The Liverpool Medical Institution," and "The Guests" were duly honoured. The last three were replied to respectively by the Lord Mayor, Sir William Banks, and Mr. Warr, M.P. The proceedings passed off in a highly successful manner, upwards of 120 gentlemen being present.

Bacteriological Research in Liverpool.

Dr. E. W. Hope, the medical officer of health of the city and port of Liverpool, has drawn up a report at the request of the Health Committee as to the work of the city bacteriologist and the system under which Professor Boyce pursues his researches. A distinct series of bacteriological investigations in respect to sewage have been promoted by the committee, and plant for the purpose has been laid down at the West Derby sewage farm by the committee. Details are given in the report of the amount of beneficial bacteriological and other work done, highly important to the community, one subject being the action of preservatives on food. The work accomplished with

reference to the study of tuberculosis in milk is also shown. 438 samples were examined during the year 1898 and 450 samples during the present year to date. It is computed that the cost of the investigations will reach the figure of £450 for the year.

Oct. 24th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

The Glasgow Southern Medical Society.

THE annual dinner of the Glasgow Southern Medical Society was held on Oct. 19th in the St. Enoch Station Hotel, Glasgow, the President of the society, Dr. Hugh Kelly, being in the chair. There were 47 gentlemen present, and Professor William Macewen, F.R.S., Honorary President of the society, was the guest of the evening. Dr. T. W. Jenkins and Dr. W. Watson acted as croupiers, and among others present were Sir William Gairdner, Professor McCall Anderson, and Professor Glaister. After the loyal and patriotic toasts had been duly honoured Dr. Sloan proposed the toast of "The Honorary President," and in doing so referred to his acute powers of observation and to his distinguished career as a surgeon. There were warriors, continued Dr. Sloan, to be found in the field of battle, but in the arena of peaceful life heroes were also to be found, and Professor Macewen was one of them. In responding to the toast Professor Macewen thanked the society for electing him their honorary president—a position which was the most honourable in their power to bestow and which came to him quite unexpectedly. He referred to his long connexion with the society and maintained that in its management it was an example that other medical societies in Glasgow might advantageously follow. Other toasts followed and speeches were made by Professor Glaister, Mr. H. E. Clark, Dr. Barr, Dr. Hamilton, Dr. Grant Andrew, and others. An orchestra rendered selections during the evening and members of the society aided the harmony by song.

University of Glasgow.

A grant of £10,000 to this University has been made by the trustees of the late Mr. James B. Thomson for the reconstruction of the Anatomical Department.

Aberdeen University.

The Joint Committee of Aberdeen Town Council and University Court met on Oct. 19th to consider the University Buildings Extension Scheme. After an animated discussion the "popular plan" was adopted subject to the proviso that a vigorous effort should be made to obtain the funds for the purpose. The plan referred to, prepared by Mr. A. Marshall Mackenzie, A.R.S.A., architect, of Aberdeen, shows the new Greyfriars Church, with a handsome tower, at the corner of Queen-street, the estimated cost being £45,000.

Oct. 24th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Mater Misericordiæ Hospital, Dublin.

THE inaugural address on the occasion of the formal opening of the winter medical session was delivered on Oct. 23rd by Dr. Thomas More Madden, obstetric physician to the institution (published on p. 1149). The chair was occupied by Dr. J. W. Moore, President of the Royal College of Physicians of Ireland, and the large assemblance of medical men and students was addressed by Mr. Justice O'Brien and by other distinguished members of the legal profession. The *Irish Times* of Oct. 24th in a leading article says: "This handsome edifice presents a noble front, with its touching inscription in letters of gold, 'The Mater Misericordiæ Hospital,' and is a facsimile of the Queen's seaside residence in the Isle of Wight—Osborne House."

Accommodation in Belfast National Schools.

At a meeting of the Public Health Committee held on Oct. 19th the medical officer of health in submitting a report on an examination into schools states that there are 291 school buildings in the city. There were 72 national schools in which the average daily attendance exceeded the number for which there is school accommodation, allowing eight feet square of floor space for each pupil. However, in August last 23 of them had reduced their number to the proper standard, leaving 49 schools still overcrowded. A list of schools which are overcrowded was submitted and a report is to be brought forward at the next meeting on those most pressing either from the point of view of overcrowding or structural defects, and the Public Health Committee will deal with them.

Clinical Teaching in the Belfast Union Infirmary.

The visiting staff of the Belfast Union Infirmary and Fever Hospital have arranged to start a clinical class during the present winter session for a limited number of senior students of the Belfast Medical School.

The Forster-Green Hospital for Consumption.

At a meeting of the General Committee of this institution it was reported that a verandah had been erected the full length of the south wing of the building at a cost of £176. The number of applications is increasing, so that during the nine months ended Sept. 30th 122 new patients had been admitted, while 346 have been treated in the extern. A resident physician is to be appointed. It was reported that the open-air treatment, though only in operation for a short time, had been productive of good results and a large proportion of the patients when discharged were enabled to return to their usual avocations.

Newry Fever and General Hospital.

At the annual meeting of the subscribers of this institution, held on Oct. 11th, it was reported that 1173 cases had been treated during the year with only nine deaths. Under the provisions of the new Local Government (Ireland) Act the management of the hospital and the admission of patients will in future be controlled by a joint committee, appointed triennially, consisting of a certain number appointed by the subscribers and of such number of members of the County Council of Down or other persons appointed by them as the Local Government Board may from time to time fix. The county council have nominated 10 and the subscribers to the hospital have nominated 21, so these 31 (both ladies and gentlemen) form the new joint committee. The grand jury paid the hospital a sum of £200 per annum out of the county cess and it is expected that the county council will continue this grant.

The M.B. Examinations of the Royal University of Ireland.

At the examinations for the M.B., B.Ch., and B.A.O. degrees of the Royal University of Ireland held in Dublin this month there were 52 candidates, of whom 35 passed, and of these 35 successful aspirants to practise 21 came from the Belfast School of Medicine. Seven gentlemen were recommended for the further examination for honours, of whom five were Belfast students.

Oct. 25th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Public Examinations for Hospital Appointments.

THE Director of the Assistance Publique has just issued a new regulation modifying the method of procedure in the examinations for the post of physician to the hospitals. The conduct of these examinations has always given rise to severe criticism on the part of those already elected as well as on the part of the candidates, and in October, 1897, the Hospital Physicians' Medical Society appointed a committee to consider some reforms to be introduced into the examinations. After a great deal of discussion a scheme was adopted and laid before the Director of the Assistance Publique in December of the same year. The new rules, however, which have appeared after 20 months' consideration on the part of the director, go but a little way towards meeting the points laid down as desirable by the society. Indeed, according to some hospital physicians, notably Dr. Achard, they intensify the inconveniences of the old system. The sole improvement is that by which the six physicians annually nominated are to be so nominated by one annual examination instead of at the two or three annual examinations which used to take place and which, as they respectively lasted six weeks, kept the candidates at work for the

greater part of the year, either in actually being examined or in preparing for an examination to come. A new danger, too, arises from the fact that the six nominations will be made by one and the same jury of 12 members, and that a bare majority will suffice—i.e., that seven votes will decide if all 12 members are present and less if one of the judges should miss one sitting throughout the term during which the examinations last. The favouritism which was a marked vice under the old system will still have every opportunity of asserting itself. The method of assigning marks by the jury is also to be modified. Formerly after each test a conference of the whole jury decided on the marks to be given to each candidate; henceforth each juryman will write down privately the number of marks to be given to the candidate and will put the record into an envelope bearing the candidate's name and signed with his own name. None of the envelopes will be opened till after the completion of all the tests. The marks will be summed up after a new system. In place of adding them and taking the mean the figures found on opening the envelopes will be written down one after the other, commencing with the highest. This series will be cut in two and the first figure of the second half will be the number assigned to the candidate. Finally, instead of having two patients to examine, the candidates will have only one and the examination will conclude by a rehearsal (*épreuve*) of a consultation. The consulting physicians (*médecins honoraires*)—that is to say, those who are over 70 years of age and have therefore retired from active hospital work—will continue as hitherto to be eligible as examiners, but only in the proportion of one to every jury. It has happened on former occasions that a jury contained too many of these elderly physicians, because the younger ones, more absorbed in practice, refused to take part in the examination and so lose six weeks of their time; so the senior element, which is either unable or unwilling to form a just estimate of modern ideas, thus came to occupy a too preponderating position upon the jury. The annual examination for appointing the resident hospital medical officers was held on Oct. 16th and was marked by a regrettable incident. The candidates sent in a protest to the Director of the Assistance Publique against the presence on the jury of a well-known surgeon who, they said, was eccentric to the verge of mental aberration and of a physician disqualified for various reasons and who in addition was obviously mentally weak. This disgraceful protest was reproduced in the political journals and it called forth two letters of contradiction on the part of the two persons who were obviously aimed at. Dr. Gougenheim, physician to the Lariboisière Hospital, wrote saying that he was not on the jury, having refused to take any part in the examination; and as regards the surgeon, Dr. Benjamin Anger, his students wrote a strongly worded letter of protest expressing in the most public way their perfect confidence in his uprightness and scientific ability.

Fulminating Tuberculosis after Childbirth.

At the meeting of the Academy of Medicine held on Oct. 17th M. Doléris reported two interesting cases in which old tuberculosis took on very virulent action after childbirth. It signalised its presence by a general infection rather than by the formation of new tubercles. In both cases M. Doléris demonstrated the presence of the tubercle bacillus in the blood by injecting some into a guinea-pig. In his opinion childbirth has the effect of putting the bacilli on a war footing (*mobilisation*) and they invade the blood, bringing about a regular tuberculous septicæmia analogous to the septicæmia which sometimes follows a surgical operation. This septicæmia is so profound that it brings about the death of the patient before any definite tubercles have time to form.

The Abuse of the Truss.

At a meeting of the Society of Surgery held on Oct. 18th M. Thierry lifted up his voice against the abuse of the truss in the treatment of hernia. Trélat's opinion that every easily reducible hernia should be treated by a truss is not correct. Hernia is a disease (*infirmité*) and one that should be operated upon. It is, therefore, most deplorable to see the Assistance Publique spending 70,000 francs per annum upon trusses which are handed over to any patient presenting a simple order for one. No one had ever derived any benefit from a truss. M. Lucas Championnière traversed this last statement, saying that if in general hernia should be treated by the performance of the radical cure it was yet none the less true that certain kinds of hernia in certain classes of cases—notably, those herniæ occurring in old people—should be kept up by means of a truss.

Oct. 24th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

Small-pox in Upper Italy.

ACQUI, one of the most frequented balneary resorts in the Italian Kingdom, is now suffering from a severe visitation of confluent variola. The malady first declared itself in epidemic form as far back as July last and since then it has assumed proportions nothing less than calamitous. Within the week now passing it has numbered many victims and yet, I am told, the communal sanitary authorities do nothing to limit its spread. Vainly do the citizens demand the prompt and effective application of hygienic measures. No attempt even to isolate the cases has as yet been made. On the contrary, the schools, the public lavatories, and the places of social resort are kept as open as if no such deadly visitant were in evidence! 150 families, representing well-nigh thrice that number of individuals, have been attacked and yet the supineness of the communal sanitary authorities remains unmoved. All the summer the neighbouring medical school of Turin, chiefly through its professor of pathology, Dr. Bizzozzero, has been vindicating the efficacy of the Jennerian prophylactic, but Acqui, which enjoys a European reputation for its mud baths and its success in treating gouty arthritis, allows a quite preventable intruder to scare away the *clientèle* from which its most lucrative revenue flows. This last consideration, it must be owned with regret, is more likely to arouse the local authorities from their lethargy than the duty they owe to the citizens whose physical and moral well-being is committed to their charge.

The Pestis Bubonica in Brazil.

At Santos, which, like other Brazilian seaports or inland centres, has a large Italian population, the pestis bubonica has appeared in force. According to information telegraphed from Rio Janeiro to Genoa, Santos itself, dirty, unhealthy, never free from yellow fever, has long been a "candidate" for such a visitation; indeed, the wonder is that, once having effected a foothold, the malady is not of a more virulent character. The Brazilian Government has displayed commendable energy in grappling with the invader. No sooner did the first victims come under medical care than the presence of the characteristic blackish spots and buboes counselled their immediate isolation, while no time was lost in procuring large quantities of the "siero-antipestifero" (it is not said whether that of Haffkine or of Lustig). The bacteriologists of the Government hygienic office, after minute examination of the dejections of the patients, confirmed the diagnosis of the physicians and accordingly from headquarters came the most stringent orders for limiting the spread of the disease. As usual, a sanitary cordon was proposed and by some of the more panic-stricken was insisted on; but after due consideration that antiquated and discredited measure was abandoned. Of a mild (*benigno*) type, the disease has yet proved as deadly as in its Asiatic "seat of origin," three deaths out of seven cases being the proportion. Probably, however, the low resisting power of the population and the depressing influences of panic explain the phenomenon. The infection was, it is alleged, introduced by a passenger who had just disembarked from the *Rey de Portugal*, on board which (it is interesting to know) there had been made during the voyage "quite a hecatomb of rats." By the most recent accounts (Oct. 22nd) the population of Santos, re-assured by the energetic provisions of the Government, was recovering its equanimity.

Pharmaceutical Misadventure: Tragic Consequences.

A case has come before the Penal Tribunal of Turin which illustrates the all too perfunctory manner in which the Italian chemist and druggist is prone to compound medicines. About a year ago in the Farmacia Bertinaria in the Subalpine Capital a number of persons purchased a quantity of seidlitz powders. These when taken instead of producing their aperient effect set up severe gastralgia and gastro-enteritis, and five of the consumers died at intervals varying from 24 hours to 10 days. Seven others who had also had recourse to the same powders

narrowly escaped with their lives, after suffering horribly from gastric and enteric pains. Inquiry into the cause elicited the following facts. The powders prepared by the pharmacist and sold to the 12 individuals, instead of containing sulphate of magnesia, contained chlorate of potash—a substance resembling sulphate of magnesia in colour but poisonous in large doses and in smaller ones prescribed by Italian physicians mainly for gargles. It is chiefly sold, however, for the making of fireworks and detonating combustibles. The mistake was committed by one Massimo Chiara, a man of 51 years of age, who after substituting the chlorate of potash for the sulphate of magnesia and preparing it in the mortar consigned it to the box destined for the sulphate. The responsible director of the pharmacy, Signor Giuseppe Marchisio, and his assistant (the aforesaid Chiara) were accordingly put on their trial, but it was found that the former had disappeared and so the proceedings were deferred till he could be brought to justice. The case unfortunately is but one out of many others which have recently happened—always with results more or less disastrous. It constitutes a loud warning to the general public, particularly the travelling world, to beware of Italian pharmacies. Only, it would seem, in Anglo-American establishments of the kind can medicines be purchased with safety.

Oct. 23rd.

BUDAPEST.

(FROM OUR OWN CORRESPONDENT.)

International Congress for the Protection of Children.

THIS Congress was held in Budapest in the month of September under the patronage of H.R.H. the Archduke Joseph. The work was divided into five sections corresponding to the main points of view from which the question of the protection of children is easiest of approach—viz., the medical, the judicial, the scholastic, the benevolent, and the philanthropic sections. In the medical section no less than 27 addresses were delivered, the most interesting of which were as follows. Professor L. Concetti (Rome) spoke of the necessity for reform in the teaching of children's diseases in the universities, the present system being unsatisfactory on account of the want of obligatory special examinations on this subject. Professor John Bókay (Budapest) delivered an address on the Prophylaxis of Whooping-cough, with special reference to the connexion which undoubtedly exists between that disease and phthisis. He pleaded for the erection of whooping-cough hospitals which should be designed so as to allow of the "cure d'air" and which should give accommodation to children who could not be properly isolated in the homes of their parents. Professor G. Thirring (Budapest) presented an interesting report on the mortality of children in that city. He found that the mortality as compared with that of 25 years ago had fallen from 490 per 1000 to 265 per 1000. This number, however, was still too high and measures ought to be taken to reduce it. The subject of alcoholism in children was ably dealt with by three speakers (Dr. Grósz, Dr. Kende, and Dr. Csillag) and a very animated debate followed. Several propositions were brought forward and finally a decision was come to in favour of temperance societies and similar organisations on the plan of those working in Great Britain. Professor Eröss (Budapest) spoke of the necessity for building hospitals for infants. It ought to be a special feature of these institutions that each infant should be accompanied by its mother. In case of the mother refusing to enter the hospital the children would have to be reared either by wet-nurses or artificially. Dr. Henri Rothschild (Paris) read a paper on the Hygiene of Infant Feeding. Dr. Temesváry and Dr. Faragó introduced the subject of the Protection of Children before Birth, the first dealing with the medical and the latter with the social aspect of this important question. Besides those already referred to papers of more than ordinary interest were read by Dr. Szontagh on the Prophylaxis of Tuberculosis in Children; by Dr. Biedert (Hagenau, Germany) on the Necessity of Providing Means for the Examination of Children's Food; by Dr. Szalárdi on the Present Foundling Institutions of Hungary; by Dr. E. Deutsch on the Nursing of Premature Children in Maternities; and by Dr. Anna Schabanoff (St. Petersburg) on the Protection of Children Suffering from Chronic Ailments in Russia. The next International Congress for the Protection of Children will be held in London in the year 1902.

Mortality of Budapest in 1898.

Statistical reports issued recently show that during last year 14,305 persons died in Budapest—i.e., 22·1 per 1000—a number which means a slight increase as compared with the year 1897 when the mortality was 22·0 per 1000. Before Buda and Pest were united into one city some 24 years ago the mortality figured as high as 45 per 1000, so that the lower rate now prevailing means the saving of 15,000 lives yearly if compared with the period alluded to above. If compared with 85 other large European cities Budapest ranks in the sixty-second place, and if those who come to town from the provinces are omitted it ranks in the forty-ninth place. This is a sad state of affairs which is only excusable if it is considered that Budapest in the past used to stand at the bottom of the list of European towns. The high mortality was principally due to acute infectious diseases. But there is a noticeable decrease in that direction, Budapest ranking now at the fifty-eighth place among the 85 European towns. The improvement is evidently the result of the stringent sanitary measures which were adopted in 1882. As compared with last year the following diseases show an increase: measles from 179 to 320 cases, scarlet fever from 138 to 233 cases, diphtheria from 128 to 162 cases, typhoid fever from 123 to 163 cases, and puerperal fever from 22 to 31 cases. A decrease was noticed in the following: whooping-cough from 87 to 44 cases, influenza from 19 to 12 cases, and small-pox from seven to five cases. Of the other fatal diseases 16·7 per cent of the deaths were due to phthisis, 14·8 per cent. to respiratory and 10·8 per cent. to gastro-intestinal diseases. The mortality was highest in the spring and lowest in the winter. The death-rate of children under five years was 428 per 1000. The average death-rate taken from the last six years of children under one year amounted to 186 per 1000 births, a rate more than that in Dublin (171), Warsaw (175), Hamburg (182), and less than that in Vienna (207), Dresden (213), Bucharest (222), Trieste (228), Berlin (237), Breslau (270), Munich (284), and St. Petersburg (310).

A New Laryngoscope.

This instrument, devised by Dr. Mark Paunz of Budapest, possesses the valuable property that it is capable of being fixed in position. The surgeon, being thereby relieved from the necessity of holding the speculum with one hand, has the free use of both hands in performing intra-laryngeal operations.

Oct. 21st.

Medical News.

SOCIETY OF APOTHECARIES OF LONDON.—In October the following candidates passed in the subjects indicated:—

Surgery.—S. T. Bewsey, St. Mary's Hospital; R. Brookes (Section I.), Westminster Hospital; J. W. Haigh, Leeds; H. M. Hardy, Guy's Hospital; F. S. Leech (Section II.), University College Hospital; W. E. Maw, Leeds; and F. C. Torbitt, Manchester and Leeds.

Medicine.—T. P. Allen (Sections I. and II.), Manchester; A. McC. Dallas (Sections I. and II.), Guy's Hospital; A. B. Dunne (Sections I. and II.), Leeds; C. A. W. Egan, Dublin and Charing-cross Hospital; T. R. Griffiths, University College Hospital; H. C. Holden, Guy's Hospital; H. N. Horton (Section I.), Middlesex Hospital; W. E. Maw, Leeds; E. S. Pushong, Calcutta; and E. C. Scarlett (Section I.), Royal Free Hospital.

Forensic Medicine.—T. P. Allen, Manchester; P. Catory St. Bartholomew's Hospital; A. B. Dunne, Leeds; C. A. W. Egan, Dublin and Charing-cross Hospital; H. Fawcett, London Hospital; A. E. Freer, St. Mary's Hospital; H. C. Holden, Guy's Hospital; H. N. Horton, Middlesex Hospital; W. E. Maw, Leeds; and E. C. Scarlett, Royal Free Hospital.

Midwifery.—J. H. Beasley, Birmingham; P. A. Chilcott, London Hospital; C. J. E. Edmonds, St. Thomas's Hospital; C. H. Farquharson and A. E. Freer, St. Mary's Hospital; C. A. C. Salmon and S. R. Thomas, Guy's Hospital; and A. F. Weston, St. George's Hospital.

The diploma of the Society was granted to the following candidates, entitling them to practise Medicine, Surgery, and Midwifery:—Messrs. A. B. Dunne, H. Fawcett, A. E. Freer, J. W. Haigh, H. M. Hardy, H. C. Holden, W. E. Maw, E. S. Pushong, F. C. Torbitt, and A. F. Weston.

UNIVERSITY OF EDINBURGH.—At the special graduation ceremonial, held on Oct. 21st, the following degrees were conferred:—

Degrees of Bachelor of Medicine and Master in Surgery.—Violet Grace Seymour Adams, England; Agnes Lloyd Bennett, Australia;

Mary Booth, Australia; Alexander Waddel Greenhorn Clark, Scotland (with second-class honours) (*in absentiâ*); Thomé Manoel Coutinho, India; John Lewis Davies, Wales; Henry Overton Hobson, England; Evariste Laval, Scotland; Finlay Munro M'Intosh, Scotland; Solomon Harold Richards, England; Frederick William Rigby, England; William Ritchie, Scotland; Thomas Barton Unwin, England; Patrick Denis Whirlskey, Ireland; William Ebenezer Williams, Wales; and Charles Grey Wotherspoon, M.A. Oxon., England.

Degrees of Bachelor of Medicine and Bachelor of Surgery.—John Anderson, Scotland; John Alexander Black, Ireland; Anthony Parry Lennon Brown, England; Alfred Ernest Burroughs, Scotland; Thomas Cathcart Caldwell, Ireland; George James Rogerson Carruthers, Scotland; David Fenton, Scotland; Arthur Stanley Frank, England; John Fullarton, Scotland; Cecil Hubert Gostwyck Gostwyck, England; Alfred Nicolle de Gruchy, Jersey; George Mackie, Scotland; Robert Archibald Macneill, Scotland; William Maconiven, Scotland; James Miller, England; Sydney Herbert Morris, England; William Purves, Scotland; Henry George Pearce Raeburn, Scotland; Frederick George Ralston, Scotland; Thomas Edward Richards, England; David Robertson, Scotland; John Merry Ross, Scotland; Charles Edward Smith, New Zealand; and William George Williams, Wales.

SANITATION AND HYGIENE LECTURES.—Dr. A. T. Schofield will give a course of six lectures for the clergy (laymen will be admitted) on this subject in the Chapter House, St. Paul's Cathedral, commencing on Nov. 6th.

ROYAL COLLEGE OF PHYSICIANS OF IRELAND.—At the annual stated meeting of the Royal College of Physicians of Ireland held on St. Luke's Day, Oct. 18th, the following officers were elected for the ensuing year:—President: Dr. John William Moore. Vice-President: Dr. W. J. Smyly. Censors: Dr. W. J. Smyly, Dr. H. C. Drury, Mr. J. Murphy, and Mr. A. N. Montgomery. Additional Examiners to take the place of an absent Censor: Medicine: Dr. J. M. Redmond; Medical Jurisprudence and Hygiene: Mr. Langford Symes; Midwifery: Dr. J. H. R. Glenn. Examiners for the Licence in Midwifery: Mr. E. Hastings Tweedy and Mr. T. H. Wilson, Additional Examiners under the Conjoint Examination Scheme: Biology: Dr. E. MacDowel Cosgrave; Chemistry and Physics: Dr. H. T. Bewley and Mr. Edwin Lapper; Materia Medica and Pharmacy: Dr. F. J. B. Quinlan and Dr. Falkiner. Physiology: Dr. J. Mallet Purser. Pathology: Dr. Wallace Beatty. Medicine: Dr. H. C. Tweedy and Mr. E. E. Lennon. Hygiene and Forensic Medicine: Mr. S. T. Gordon. College Examiners for the Conjoint Diploma in State Medicine: Meteorology: Dr. Ninian Falkiner; Hygiene: Dr. F. J. B. Quinlan; Chemistry: Mr. Edwin Lapper. Examiners in Preliminary Education: Language: Mr. William Kennedy, Sch. T.C.D.; Science: Mr. C. Joy, F.T.C.D. Representative on the General Medical Council: Dr. Lombe Atthill. Representatives on the Committee of Management under the Conjoint Examination Scheme: Dr. J. Magee Finny, Sir C. J. Nixon, and Dr. James Craig. Treasurer: Dr. Lombe Atthill. Registrar: Dr. James Craig. In the evening the annual banquet of the President and Fellows was held in the College Hall.

VICTORIA DENTAL HOSPITAL, MANCHESTER.—A meeting for the distribution of prizes and for the inauguration of the winter session of the Victoria Dental Hospital was held on Oct. 12th at the Owens College. Until 1884 there was no hospital for giving dental aid to the poor of Manchester, Salford, and the surrounding district, nor were there any educational facilities for dental students. Since that date, however, relief has been given to 160,000 patients and students can now obtain instruction in all the branches of the dental art. All this has been gradually developed. During the present year the scheme of education in mechanical dentistry has been perfected and in connexion with the hospital artificial teeth can now be supplied to really necessitous patients on the recommendation of a subscriber and by the payment of a small contribution towards the cost. Though the dental school is of recent establishment over 70 of its students have obtained the dental qualification. The entries this year have been 24, which brings the number of the present students up to 43. This is largely in excess of any previous year and the space at the hospital is now found to be quite inadequate. Efforts are therefore being made to provide ere long a sufficiently large and properly-equipped hospital. The prizes were distributed and an address was given by Professor Leech, in the course of which he spoke of the great advance during the last 20 years in dental education, the nature and extent of which he thought were not fully recognised by the public. The course of instruction at the hospital "was in close connexion with the dental instruction at the Owens College" and "the relations between the college and the hospital were most intimate and friendly." A vote of thanks was given to Professor Leech for his address.

MUNIFICENCE.—The Committee of the Nottingham Children's Hospital has received an offer from Mr. T. J. Birkin, a county magistrate, who, with the view of meeting the difficulty felt by the Committee to enlarge the hospital as they desire on its present site, has offered to present Forest House with sufficient ground for any reasonable enlargement. The house is a large residence standing in its own extensive grounds on the north side of the city.

UNIVERSITY OF CAMBRIDGE.—Dr. Donald MacAlister, Fellow and Tutor of St. John's College, was re-elected on Oct. 23rd to represent the University on the General Council of Medical Education and Registration of the United Kingdom for a period of five years. The examination for medical and surgical degrees during the present term will begin on the following dates: First M.B., Part I., Chemistry and Physics, Monday, Dec. 11th; Second M.B., Part I., Pharmaceutical Chemistry, Monday, Dec. 11th; Third M.B., Parts I. and II., Tuesday, Dec. 12th; Second M.B., Part II., Anatomy and Physiology, Wednesday, Dec. 13th; First M.B., Part II., Biology, Wednesday, Dec. 13th; for degree of Master in Surgery, Friday, Dec. 15th.—The appointment of Examiners for medical and surgical degrees for the ensuing year has been made as follows: Mr. Sell and Mr. Adie in Chemistry; Mr. Fitzpatrick and Mr. Capstick in Physics; Mr. Bateson and Mr. Seward in Biology; Mr. Ivatt and Mr. Ruhemann in Pharmaceutical Chemistry; Dr. Barclay Smith and Professor Cunningham in Human Anatomy; and Dr. Anderson and Professor Starling in Physiology. For the Natural Sciences Tripos Mr. Duckworth and Professor Wardrop Griffith have been appointed to examine in Human Anatomy, Professor Gotch and Dr. Langley to examine in Physiology. The following candidates have passed both parts of the recent examination for the Diploma in Public Health: G. A. Brown, M. M. T. Christie, A. L. L. Cumming, W. C. H. Forster, J. H. Godson, J. Guy, W. F. Harvey, H. E. Hewitt, J. P. D. Leahy, C. A. Lumley, H. C. McDouall, V. L. Manker, P. Padmanabhan, A. E. Porter, C. W. Young.

MEDICAL SERVICE IN STATE AT ST. PAUL'S CATHEDRAL.—The thirty-fifth anniversary of the foundation of the Guild of St. Luke was marked by a special service in St. Paul's Cathedral on Oct. 19th. Festal evensong was sung, the musical portion of the service being carried out by the London Gregorian Choral Association. Invitations having been issued to all the medical men in the London district, there was a very fair assembly of them and their friends, together with members of the Guild from the provinces. About 300 wore academical costume, among them being several lady graduates. The Lord Mayor and Sheriffs attended in state, and they were supported by representatives of several of the City companies. The arrangements were similar to those of previous years, the medical procession being headed by the provost and other officers of the Guild, together with many distinguished members of the procession. The choir procession numbered about 300 voices and afforded an imposing spectacle as it proceeded along the nave with numerous banners. The prayers were intoned by Minor Canon Besley, and the special lessons for the occasion were read respectively by Minor Canon Kelly and the Rev. James Dixon. The sermon was preached by the Bishop of Stepney, who dwelt specially upon the close relations which should exist between the priestly and the medical professions. He pointed out that during the first 1000 years of Christianity the work of the two was intimately associated, every hospital in Europe having for its house governor the bishop of the diocese. Even in the present day the parish priest could wish to secure no stronger ally than the medical man, with his knowledge of, and influence over, family life. As regards actual missionary enterprise the Guild was already giving valued aid in one of the poorest districts of the East-end of London, and members of the Guild were also acting as medical missionaries in various parts of the world. The Guild hoped before long to do more in this direction by founding and supporting a training college for those anxious to engage in medical missionary work and the proceeds of the offertory on this occasion, after defraying the necessarily large cost of the service, would go to the fund which is being raised for this object. In the course of his sermon the preacher alluded with much feeling to the life-work and recent sad death of John

Wale Hicks, D.D., M.D., F.R.C.P. Lond., Bishop of Bloemfontein, who had for many years been a distinguished member of the Guild of St. Luke. One who knew him well had written: "We delighted to have such a man in our body. We all loved and venerated him, and his death on the very day war was declared in the Orange Free State is deeply regretted. He was one of those saintly men who won the hearts of all with whom he came in contact, and one whom the Church could ill afford to lose."

PRESENTATIONS TO MEDICAL MEN.—Recently Mr. Thomas Thomas, L.R.C.P. Lond., M.R.C.S. Eng., who has been assistant surgeon at the Dowlais Ironworks, was presented with a purse containing a cheque for £94, together with an illuminated address, as a token of respect and esteem by the residents on the occasion of his leaving the district. The presentation was made by the chief constable (Mr. Joseph).—In recognition of Mr. J. E. Hartley's services as honorary secretary for the past 18 years, the committee of the Birmingham and Midland Hospital for Skin Diseases have presented him with an illuminated address and a silver tea and coffee service and salver. Mr. F. L. Phillips, M.D. Brux., M.R.C.S. Eng., who has filled the post of honorary surgeon at the hospital, has also been the recipient of an address on his retirement.—Recently at the Board Schools, Llanrwst, North Wales, Mr. Harrop Parry, M.B., C.M. Glasg., was presented with a marble timepiece bearing a suitable inscription in recognition of gratuitous services given last winter to the local ambulance class. The Bettws-y-Coed ambulance class have presented to him a silver-mounted cigar case.—On Oct. 5th a largely attended meeting was held in the Recreation Hall of the Broadmoor Asylum to bid "good-bye" to Dr. J. B. Isaac and to make a presentation to him. Dr. Isaac has completed 24 years' medical service at Broadmoor and has retired on a pension. The subscription list, signed by officers and members of the staff of every grade, is a testimony of the esteem in which he is held. The testimonial presented was a gold hunting watch inscribed with Dr. Isaac's monogram and bearing a suitable inscription. At the same time Mr. Hamilton, the chief attendant, on behalf of the staff, asked Dr. Isaac to accept for his sister, Mrs. Roberts, a silver egg-stand as a memento of the useful time she had spent at Broadmoor with her brother.

Parliamentary Intelligence.

HOUSE OF COMMONS.

THURSDAY, OCT. 19TH.

Rabies in London.

MR. LOUGH asked the President of the Board of Agriculture when the last authenticated case of rabies occurred in the metropolis; and whether he now saw his way to state when he would be able to revoke the order for the muzzling of dogs in the metropolis.—Mr. WALTER LONG: I have under consideration proposals with regard to the withdrawal of the muzzling orders now in force in the metropolitan police district, and I shall be in a position to make a definite announcement on the subject at an early date. The last authenticated case of rabies in the metropolitan district occurred on June 8th, 1898.

Meat Supply for the Troops in South Africa.

Mr. LOWLES asked the Under Secretary of State for War whether he was aware that Queensland and other of the Australasian colonies were prepared to supply in large quantities tinned meats and other stores, and whether preference would be given to colonial over foreign products for the use of British troops in South Africa.—Mr. POWELL WILLIAMS, on behalf of Mr. GEORGE WYNDHAM, said: By far the largest orders for supplies of meat and forage have been placed with the Australian colonies, but where supplies are needed within a limited time we must avail ourselves of any market which will best meet our requirements.

Army Medical Establishments.

In Committee of Supply the House passed a supplementary vote of £10,000,000 to meet additional expenditure in the army "in consequence of the military situation in South Africa." The vote included £50,000 for medical establishments.

FRIDAY, OCT. 20TH.

The Annual Vacation of Medical Officers in Ireland.

Mr. MACNEILL asked the Chief Secretary to the Lord Lieutenant of Ireland whether his attention had been directed to the reported complaints made by rural district boards in Ireland as to the action of the Irish Local Government Board in increasing the expenses of the working of the Irish Local Government Act. Would he explain why, although on the passing of the Local Government Act the Local Government Board made rules for the administration by boards of guardians of the dispensary districts and provided that medical officers should be allowed an annual vacation not exceeding four weeks, they now insist that boards of guardians must give to medical officers an annual vacation of four weeks at least, and whether the Right Honourable The MacDermot, Q.C., had advised that the action of the Local Government Board for Ireland in this insistance was illegal, and that the length of vacation was within the discretion of the board of guardians; whether, in the case of the medical officer at Pettigo, to whom the board of guardians had consented to give two weeks' vacation, the vacation was extended to four weeks by the Local Government Board for Ireland, and the medical officer was encouraged by that Board to take four weeks' vacation in defiance of the resolution of the board of guardians limiting his vacation on grounds of economising public money to two weeks; and what steps, if any, did he propose to take for the purpose of checking the action of the Local Government Board in increasing the burthen of public expenditure.—Mr. GERALD BALFOUR: So far as I am aware no complaints of the general character indicated in the first paragraph of the question have been made. Owing to the abolition of dispensary committees under Section 30 of the Local Government Act, it was necessary that the rules for the management of dispensaries should be revised. The Local Government Board for Ireland took the opportunity when revising the rules, to introduce several new regulations which had for some time been considered desirable, amongst others one intended to prescribe a period of four weeks as the amount of vacation to which the medical officer in each dispensary district should be entitled. The Board believe that the words used carry out this intention, but if they are obscure or insufficient the rule can be amended. The necessity for such a rule had long been urged and the Local Government Board for Ireland felt that as dispensary medical officers are called upon to discharge their duties on Sundays as well as on week days and at all hours of the night as well as of the day it was essential in the interest of the sick poor that these officers should have secured to them a definite period annually for rest and recuperation. The propriety of the rule has been generally recognised by the public and is, I believe, objected to by only a very small minority of the boards of guardians. The rule in question was made under legal advice and the wording of it is taken from the Civil Service regulations. The Board have not seen any opinion of The MacDermot on the subject. The medical officer of Pettigo applied for four weeks' vacation and his application was approved by the Local Government Board for Ireland. The guardians reduced the leave to two weeks but this order was contrary to the regulation and invalid.

MONDAY, OCT. 23RD.

The Treatment of Inebriates.

Mr. PICKERSGILL asked the Home Secretary whether his attention had been called to the observations of the learned chairman of the County of London Sessions on Oct. 13th in passing sentence on Joanna Driscoll that there was no State inebriate reformatory in existence to which he could order her to be sent, as contemplated by the Inebriates Act; whether, seeing that a man who had previously been convicted seven times in 12 months was sentenced, at the recent Lancaster Quarter Sessions, to three years' detention in an inebriates reformatory, but the Home Office had informed the Governor of Lancaster Castle that there was no reformatory for such inebriates, he would state what course did he propose to take with regard to this prisoner; and whether temporary arrangements had been made for the use of a portion of one of Her Majesty's prisons for a State inebriate reformatory as stated in the Report of the Departmental Committee dated Dec. 12th last, and if not would he be good enough to state what steps he had taken to give effect to the intention of Parliament.—Sir MATTHEW WHITE RIDLEY: I have seen a newspaper report of the case at the London Quarter Sessions, and I am making inquiry as to the circumstances. I may say that *primâ facie* the accused seems to be as well qualified for committal to a certified reformatory, of which there are now several in existence, as to a State reformatory. As regards the case at the Lancaster Quarter Sessions, I am also making inquiry, as the circumstances of the committal are not clear. I may add that there will be at least one certified reformatory ready for the reception of male inebriates in a very short time. I have abandoned the project of adapting a portion of one of Her Majesty's prisons for use as a temporary State reformatory. My reasons for so doing, as well as for hesitating to establish a permanent State reformatory, are given fully in a circular which I issued last January to Her Majesty's Judges and others, and of which I have directed a copy to be sent to the hon. Member. I will only say here that subsequent experience has justified and confirmed that hesitation.

Venereal Disease among the Troops in India.

In answer to a question addressed to him by Sir JAMES FERGUSSON, Lord GEORGE HAMILTON said: The admission rate for venereal disease among British troops in India (including those on field service) was 363 per 1000 in 1898 against 486 in 1897, 511 in 1896, and 522 in 1895. This is a considerable decrease and is the more gratifying because the new cantonment rules, to which it is no doubt mainly due, had not fully come into operation at the time when the return was made. The rate was lower in 1898 than in any year since 1887 and the figures of 1898 show a greater reduction on those of 1897 than has ever been reported in any previous year, but they are still sadly high, and I hope and expect under the present system to see them much further reduced.

TUESDAY, OCT. 24TH.

Revocation of the Dog Muzzling Order in London.

Mr. WALTER LONG, President of the Board of Agriculture, announced that an order for the revocation of the dog muzzling order in the Metropolitan Police District had been made and gazetted and would come into operation on Friday, Oct. 27th.

The Annual Vacation of Medical Officers in Ireland.

Mr. DALY asked the Chief Secretary to the Lord Lieutenant of Ireland whether he was aware that the order made by the Local Government Board giving dispensary medical officers a month's holiday each would cost the ratepayers of Ireland several thousand pounds annually; whether he could state if boards of guardians were consulted before issuing this order; whether he could explain why this order was only made after the Government had fixed a contribution in relief of rates based on the standard year of 1896; and whether he would direct the Local Government Board to pay at least half of the cost of medical officers' substitutes in the future.—Mr. GERALD BALFOUR replied that he was aware that the order made by the Local Government Board giving dispensary medical officers a month's

holiday each would cost the ratepayers of Ireland several thousand pounds annually, but the increased charge on each union would be scarcely appreciable. The entire cost would amount on an average to something less than one-sixth of a 1*d.* in the £ in each case, and in many unions it had always been the practice to make this allowance and in such cases there was no extra expense on the ratepayers. The new dispensary regulations were not submitted in draft to the guardians. The new regulations had in any case to be made in consequence of the abolition of dispensary committees and the transfer of their powers to boards of guardians. The financial arrangements of the Local Government Act had nothing to do with the matter. There was no legal power to direct the Local Government Board to pay half the cost of the medical officers' substitutes.

The Treatment of the Wounded in South Africa: Sir William MacCormac's Offer.

Sir WALTER FOSTER asked the Under Secretary of State for War whether he could state what arrangements he had made for the treatment of the wounded in the South African campaign by the employment of civilian medical aid to assist the officers and men of the Royal Army Medical Corps and the conditions of service of such civilian medical officers and nurses.—Mr. GEORGE WYNDHAM: Authority has been given for supplementing the Army Medical Staff in South Africa by the employment of 56 civilian surgeons and 11 nurses of the Army Nursing Service Reserve. The civilian surgeons will receive £1 a day, with a horse and the allowances of a captain. On the conclusion of their service they will be entitled to a gratuity of two months' pay. A nurse will receive £40 a year, with allowances, and a gratuity of £20 on cessation of duty. I am glad to take this opportunity of announcing that Sir William Mac Cormac, the distinguished President of the Royal College of Surgeons, has intimated to the Secretary of State his willingness to proceed to South Africa with Sir Redvers Buller's field force and to place his skill and experience at the disposal of the military authorities. We have not hesitated to accept this generous and patriotic offer and we shall probably arrange that he is to have the assistance of two specially selected civil surgeons.

The announcement with regard to Sir William Mac Cormac was received with cheers from all parts of the House.

Mr. WYNDHAM at a later period of the sitting read a statement prepared by the Commander-in-Chief, Lord Wolseley, and headed "Forenoon, Oct. 24th," in which his lordship said: "General Yule reports that his wounded are doing well. The Boer wounded in our hands are treated just as our wounded are, and I have every reason to believe that the Boers will treat any of our wounded in their hands in a similarly humane manner."

BOOKS, ETC., RECEIVED.

ALLEN, GEORGE, 156, Charing Cross-road, London.

Good Citizenship. Edited by the Rev. J. E. Hand, with a Preface by the Rev. Chas. Gore, M.A., D.D., Canon of Westminster. 1899. Price 6*s.* net.

BAILLIÈRE, TINDALL, AND COX, King William-street, Strand, London.

A Manual of Surgery. By Wm. Rose, M.B., B.S. Lond., F.R.C.S., and A. Carless, M.S. Lond., F.R.C.S. Second edition. 1899.

BLACKWOOD, W., AND SONS, London and Edinburgh.

Practical Nursing. By Isla Stewart and Herbert E. Cuff, M.D., F.R.C.S. In two vols. Vol. I. 1899. Price 3*s.* 6*d.* net.

COMMERCIAL GAZETTE JOB PRINT, Cincinnati.

Report on the Investigations into the Purification of the Ohio River Water, for the Improved Water-supply of the City of Cincinnati, O. By the Board of Trustees, Commissioners of Waterworks. 1899.

FOURDRINIER, D., 46, Catherine-street, Strand, London.

"The Builder," Student's Series. Architectural Hygiene, or Sanitary Science as applied to Buildings. By B. F. Fletcher and H. P. Fletcher. Illustrated. 1899.

FROWDE, H., London.

A Handbook of Anatomy for Art Students. By A. Thomson, M.A., M.B. Illustrated. Second edition. 1899. Price 16*s.* net cash.

GLAISHER, H. J., Wigmore-street, London.

Cancer. By Thos. W. Nunn, F.R.C.S. Eng. 1899. Price 2*s.* net.

LAMERTIN, H., Bruxelles.

L'Année Chirurgicale: Revue Encyclopédique de Chirurgie Générale et Spéciale. Par Dr. A. Depage. Première année: 1898–1899.

LEWIS, H. K., Gower-street, London.

A Contribution to the Surgery of Fractures and Dislocations of the Upper Extremity. By J. E. Platt, M.S. Lond., F.R.C.S. Illustrated. 1899. Price 10*s.*

Rough Notes on Remedies. By William Murray, M.D., F.R.C.P. Lond. Third edition. 1899. Price 3*s.* 6*d.*

MACMILLAN AND CO., London.

Handbook of Optics. By W. N. Suter. 1899. Price 5*s.*

NEWMANN, O., AND CO., Newman-street, Oxford-street, London.

Healthful Physical Exercises (on the Swedish system) for young and old and for both sexes. By a Medical Man. Translated by W. L. Rooper, with a Preface by T. G. Rooper. 1899. Price 2*s.* 6*d.*

Newmann's Hygiene for the School and Home. By H. Major, B.A., B.Sc. 1899. Price 2*s.* 6*d.*

OLIVER AND BOYD, Edinburgh.

A Manual of Modern Gastric Methods, Chemical, Physical, and Therapeutical. By A. L. Gillespie, M.D., F.R.C.P. Edin., F.R.S., with a Chapter upon the Mechanical Methods used in Young Children. By J. Thomson, M.D., F.R.C.P. Edin. 1899. Price 5*s.*

ST. BRIDE'S PRESS, Bride-lane, Fleet-street, London.

The Construction of Roads and Streets. By W. H. Maxwell, C.E. Illustrated. 1899. Price 3*s.* 6*d.*

SAMPSON LOW, MARSTON, AND CO., Fetter-lane, Fleet-street, London.

The Guide to South Africa. With coloured maps, plans, and diagrams. Edited annually by A. S. Brown and G. G. Brown. 1899–1900 edition. Seventh edition. 1899. Price 2*s.* 6*d.*

SHAW AND SONS, Fetter-lane, London.

Shaw's Manual of the Vaccination Law. By a Barrister-at-Law. Seventh edition. Price 5*s.*

SIMPKIN, MARSHALL, HAMILTON, AND CO., London.

Paul Rees: A Story of the Coming Reformation. By Augustinus. Price 1*s.* 6*d.*

SKEFFINGTON AND SON, Piccadilly, London.

The Little Panjandrum's Dodo. By G. E. Farrow. Illustrated. 1899. Price 5*s.*

SOCIETY FOR PROMOTING CHRISTIAN KNOWLEDGE, Northumberland-avenue, London.

The Romance of Science Series—Our Secret Friends and Foes. By P. F. Frankland, Ph. D. B.Sc. Lond., F.R.S. Fourth edition. 1899. Price 3*s.*

UNWIN, T. F., Paternoster-square, London.

The Doctor: A Study from Life. By Henry de Vere Stacpoole. 1899. Price 6*s.*

VIR PUBLISHING COMPANY, Imperial-arcade, Ludgate-circus, London.

What a Young Husband Ought to Know. By S. Stall. 1899. Price 4*s.* net.

WRIGHT, J. AND CO., Bristol; SIMPKIN, MARSHALL, AND CO., London.

A Guide to Urine-testing, for Nurses and Others. By Mark Robinson, L.R.C.P., L.R.C.S. Edin. 1899. Price 1*s.*

The P. and O. Pocket Book. Second issue. Illustrations and Maps. 1899. Head Office, 122, Leadenhall-street, London, E.C.—South African Health Resorts. The Voyage to South Africa and Sojourn there. Illustrated. 1899. (Donald Currie and Co., Fenchurch-street, London.)—Arabic Self-taught (Syrian) with English Phonetic Pronunciation, by C. A. Thimm, F.R.G.S. Edited by A. Hassam and Professor G. Hagopian. Third edition. 1899. (E. Marlborough and Co., Old Bailey, London.) Price 2*s.* or 2*s.* 6*d.*, bound in cloth.—Edinburgh University Students' Handbooks. No. 4. 1899–1900. (Published by the Students' Representative Council of the University.) Price 4*d.*—Magazines, &c., for November: Strand Magazine, Boy's Own Paper, Girl's Own Paper, Leisure Hour, Sunday at Home, Ludgate Magazine, Westminster Review, Contemporary Review, Friendly Greetings, Myra's Journal, Pall Mall Magazine, Windsor Magazine, English Illustrated Magazine, Knowledge, Humanitarian, Wide World Magazine, New Century Review.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.

CATTELL, G. TREW, M.D. Brux., D.P.H. Cantab., M.R.C.S., L.R.C.P., L.S.A., has been appointed for duty in connexion with the medical charge of troops at Hounslow.

DOWNIE, T. TAYLOR, M.B., C.M. Glasg., has been re-appointed a Midwifery Surgeon to the Women's Hospital, Melbourne, Victoria, Australia.

GAMAN, F. R. S., L.R.C.P. Lond., M.R.C.S., has been re-appointed Medical Officer of Health by the Caister Rural District Council.

GIBBON, A. H., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been re-appointed Medical Officer of Health by the Bury Town Council.

HARRIS, WILFRED J., M.D. Cantab., M.R.C.P., has been appointed Assistant Physician to the City of London Hospital for Diseases of the Chest, Victoria-park, E., vice J. J. Perkins, resigned.

KEY, DAVID T., M.R.C.S., L.S.A., has been appointed Medical Officer and Public Vaccinator for the Wyke Regis District of the Weymouth Union, vice R. P. Simpson, resigned.

MARTIN, E. W., M.B., Ch.B., has been appointed Junior House Physician to the City of London Hospital for Diseases of the Chest, Victoria-park, E.

MOORE, E. J. F., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Workhouse, Bethnal-green, London.

O'FARRELL, H., L.R.C.P., L.R.C.S. Irel., has been appointed Medical and Sanitary Officer for the No. 1 Portumna Dispensary District, co. Galway.

PARSONS, C. T., M.D. Lond., has been appointed Resident Medical Superintendent for the Fulham Union Infirmary, vice W. Steer, resigned.

PETHYBRIDGE, WALTER LEY, B.Sc., M.D. Lond., L.R.C.P. Lond., M.R.C.S., has been re-appointed Physician's Assistant at the Plymouth Public Dispensary.

POTTS, W. J., M.D. Lond., L.R.C.P., M.R.C.S., has been appointed Medical Superintendent for the Infirmary, Bethnal-green, London.

PRICE, F. W., M.B., C.M. Edin., has been appointed Assistant Resident Medical Officer to the Brompton Hospital for Consumption and Diseases of the Chest.

REED, WALTER HUGO, M.R.C.S., L.S.A., has been appointed Medical Officer of Health by the Westbury (Wiltshire) Urban Council.

RORIE, G. A., M.B., Ch.B. Edin., has been appointed Junior Assistant Medical Officer to the Cumberland and Westmorland Asylum, Carlisle.

ROWLANDS, WILLIAM CORDEN, M.B., C.M. Edin., has been appointed Medical Officer at the Llynvi Colliery, South Wales.

STEVENS, BERTRAM CROSSFIELD, M.B., B.S. Durh., L.R.C.P. Lond., M.R.C.S., L.S.A. Lond., has been appointed Senior Assistant House Surgeon to the Huddersfield Infirmary.

TAYLOR, HENRY YOUNG, M.B., C.M. Edin., has been appointed Senior House Surgeon to the Huddersfield Infirmary.

THORNE, MAY, M.D. Brux., has been appointed Teacher of Vaccination, and empowered to grant certificates by the Local Government Board. The Vaccination Station is at the New Hospital for Women, 144, Euston-road, London, N.W.

WARD, J. P. STEPHENS, L.R.C.P. Lond., M.R.C.S., has been re-appointed Assistant Physician at the Plymouth Public Dispensary.

WEBBER, HENRY WOOLMINGTON, M.S., M.D. Lond., L.R.C.P. Lond., M.R.C.S., has been re-appointed Medical Officer to the Provident Department of the Plymouth Public Dispensary.

WHITEFORD, C. HAMILTON, L.R.C.P. Lond., M.R.C.S., has been re-appointed Medical Officer to the Provident Department of the Plymouth Public Dispensary.

WILLIAMSON, O. K., M.A., M.B., B.C. Cantab., M.R.C.S., L.R.C.P. Lond., has been appointed Pathologist to the City of London Hospital for Diseases of the Chest, Victoria Park, E.

Vacancies.

For further Information regarding each vacancy reference should be made to the advertisement (see Index).

BIRMINGHAM AND MIDLAND EYE HOSPITAL, Church-street, Birmingham.—Assistant House Surgeon. Salary £50 per annum, with apartments and board.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn-road, W.C.—House Surgeon. Board and residence provided in the hospital.

CITY AND COUNTY OF KINGSTON-UPON-HULL.—Assistant Medical Officer of Health, *pro tem.* Salary £6 6s. per week, with board. Apply to the Medical Officer of Health, Town Hall, Hull.

COUNTY BOROUGH OF GREAT YARMOUTH.—Medical Officer of Health, Medical Officer for the Borough Isolation Hospital, and Port Medical Officer of Health. Salary £400 a year. Apply to the Town Clerk, Town Hall, Great Yarmouth.

COUNTY OF LONDON, MANOR ASYLUM, Horton, Epsom, Surrey.—Dispenser. Salary £110 per annum, rising by £10 a year to £150, with dinner daily. Apply to the Clerk to the Asylums Committee, Office, 6, Waterloo-place, S.W.

DEVONSHIRE HOSPITAL, Buxton, Derbyshire.—Assistant House Surgeon. Salary £50 per annum, with furnished apartments, board, and washing.

FRENCH HOSPITAL AND DISPENSARY, 172, Shaftesbury-avenue, London.—Resident Medical Officer, unmarried, speaking French. Salary £80 per annum, with full board.

GLAMORGAN COUNTY COUNCIL AND CARDIFF CORPORATION.—Bacteriologist to the Joint Committee of the Glamorgan County Council and Cardiff Corporation, and Lecturer on Bacteriology in the University of Cardiff. Salary as Bacteriologist and Lecturer, £300 a year. No pension or payment on account of fees received. Apply to the Clerk, Glamorgan County Offices, Cardiff.

GUY'S HOSPITAL, London-Bridge, S.E.—The Beaney Scholarship in Materia Medica. Annual value £30. Tenable for three years.

HARRIS PARISH COUNCIL FOR THE SOUTHERN DIVISION OF HARRIS.—Medical Officer and Public Vaccinator. Salary £90, other emoluments. Apply to Mr. T. Wilson, Solicitor, Lochmaddy, Clerk.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, Bloomsbury, London.—Resident Medical Superintendent for one year. Salary £105, with board and residence in the hospital.

HOSPITAL FOR THE INSANE, The Coppice, Nottingham.—Assistant Medical Officer, unmarried. Salary £150 per annum, with apartments, board, attendance, and washing.

HOSPITAL FOR WOMEN, Soho-square (The London School of Gynæcology).—Clinical Assistantships.

LIVERPOOL DISPENSARIES, 34, Moorfields, Liverpool.—Assistant Surgeon, unmarried. Salary £100 per annum, with board and residence.

LIVERPOOL STANLEY HOSPITAL.—Junior House Surgeon. Salary £70 per annum, with board, residence, and washing.

LONDON LOCK HOSPITAL, Harrow-road, W.—House Surgeon to the Female Hospital. Salary £50 per annum, with board, lodging, and washing.

LONDON TEMPERANCE HOSPITAL, N.W.—Surgical Registrar and Anæsthetist. Honorarium 50 guineas.—Also Assistant Resident Medical Officer for six months. Honorarium at the rate of 50 guineas per annum. Board, residence in the hospital, and washing provided.

MANCHESTER CHILDREN'S HOSPITAL, Pendlebury.—Honorary Aural Surgeon. Apply to the Secretary, Dispensary, Gartside-street, Manchester.

MEMORIAL HOSPITAL, Jarrow-on-Tyne.—Surgeon. Salary to commence at £120 per annum, with board and laundry.

METROPOLITAN ASYLUMS BOARD.—Appointments under the Board of Assistant Medical Officers at the Fever and Small-pox Hospitals. Salary £160 the first year, £180 the second year, and £200 the third and subsequent years, with board, lodging, attendance, and washing, subject to statutory deductions. Applicants must be unmarried. Apply to the Clerk to the Board, Norfolk-street, Strand, W.C.

NOBLE'S ISLE OF MAN GENERAL HOSPITAL AND DISPENSARY, Douglas, Isle of Man.—Resident House Surgeon, unmarried. Salary £72 per year, with board and washing.

NORTH-WEST LONDON HOSPITAL, Kentish-town-road.—Honorary Anæsthetist for twelve months. Also Resident Medical Officer and Assistant Resident Medical Officer for six months. Salaries at the rate of £50 per annum each.

NOTTINGHAM GENERAL DISPENSARY.—Assistant Resident Surgeon. Salary £140 a year. Special arrangement as to board, &c.

PARISH OF FULHAM.—Assistant Medical Superintendent for the Infirmary, St. Dunstan's-road, Hammersmith, unmarried. Salary £120 per annum, increasing £10 yearly to a maximum of £150, with board, furnished apartments, attendance, and washing, subject to statutory deductions. Applications to the Clerk to the Guardians, 75, Fulham Palace-road, Hammersmith, W.

PARISH OF ST. GILES, Camberwell, London.—Assistant Medical Officer for the Workhouse at Gordon-road, Peckham. Salary £120 per annum, with furnished apartments outside the Workhouse, and an allowance of £1 1s. weekly in lieu of board and washing. Apply to the Clerk to the Guardians, 29, Peckham-road, S.E.

PARISH OF ST. MARY, Islington.—Second Resident Assistant Medical Officer and Dispenser of Medicines for the Workhouse and Infirmary, St. John's-road, Upper Holloway. Salary £100 per annum, with rations, apartments, and washing. Apply to the Clerk, Guardians' Office, St. John's road, Upper Holloway, N.

PONTEFRACT GENERAL DISPENSARY AND INFIRMARY.—Resident Medical Officer. Commencing salary £130 per annum, rooms, fire, lights, and attendance.

POPLAR HOSPITAL FOR ACCIDENTS, Poplar.—First and Second Assistant House Surgeons for six months. Salary at the rate of £65 per annum, with board and residence.

PRESTON ROYAL INFIRMARY.—Assistant House Surgeon. Salary £50 per annum, with board, lodging, and washing, &c.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone-road, London.—Assistant Resident Medical Officer for four months. Salary at the rate of £50 per annum, with board, residence, and washing.

RADCLIFFE INFIRMARY, Oxford.—Surgeon.

ROYAL EAR HOSPITAL, Soho, London.—Anæsthetist. Also House Surgeon, non-resident. A small honorarium given.

ROYAL HALIFAX INFIRMARY.—Dresser to work under the House Surgeons. Board and residence provided.

ROYAL INFIRMARY, Hull.—House Surgeon for two years, unmarried. Salary 100 guineas per annum, with board and furnished apartments.

ST. MARK'S HOSPITAL FOR FISTULA AND OTHER DISEASES OF THE RECTUM, City-road, London, E.C.—House Surgeon. Salary £50 per annum, with board and lodging.

STOKE UPON-TRENT UNION.—Resident Medical Officer for the Workhouse. The salary is £130 for the first year, increasing £15 annually to a maximum of £175, with board, washing, and furnished apartments in the hospital, subject to statutory deductions. The Guardians provide the drugs, medicines, and appliances.—Applications to the Clerk to the Guardians, Union Offices, Stoke-upon-Trent.

UNIVERSITY COLLEGE, London.—Second Anæsthetist.

WEST BROMWICH DISTRICT HOSPITAL.—House Surgeon, unmarried. Salary £100 per annum, with board, residence, and washing.

Births, Marriages, and Deaths.

BIRTHS.

ANDRÉ.—On Oct. 20th, at Sidlesham, near Chichester, the wife of J. E. F. André, M.R.C.S., L.R.C.P., of a son.

ARMSTEAD.—On Oct. 20th, at Chepstow-villas, W., the wife of H. W. Armstead, M.D., F.R.C.S., of a daughter.

COCK.—On Oct. 18th, at Porchester-houses, W., the wife of F. William Cock, M.D., of a son.

DRABBLE.—On Oct. 20th, at the Manor House, Walton-on-Thames, the wife of George White Drabble, M.A., M.B., B.C., of a daughter, prematurely.

FAIRWEATHER.—On Oct. 18th, at Glenesk, Wood-green, N., the wife of D. Fairweather, M.A., M.D. Edin., of a son.

FINCHAM.—On Thursday, Oct. 19th, at 17, John-street, Bedford-row, W.C., the wife of Ernest C. Fincham, M.R.C.S. Eng., L.R.C.P. Lond., of a son.

HARRIS.—On Oct. 19th, at Bell-street, Shaftesbury, the wife of W. J. Harris, M.B., F.R.C.S.E., of a son.

MARSHALL.—On Oct. 21st, at Oak House, Huddersfield, the wife of William Laurence Wright Marshall, of a son.

MARRIAGES.

GIBSON—REID.—At Park Church, Glasgow, on Oct. 25th, by the Rev. Norman MacLeod, D.D., of Inverness, and the Very Rev. Herbert Story, D.D., Principal of the University, John Hutchinson Gibson M.R.C.S. Eng., L.R.C.P. Lond., Aldershot, to Frances, daughter of the late Francis Reid, Shandon.

RAMSAY—BARRETT.—On Oct. 18th, at St. John the Baptist, Kensington, by the Rev. W. M. Spencer, Henry Ward Ramsay, son of T. W. H. Ramsay, R.N., of Mutley, Plymouth, to Hilda, daughter of Alfred E. Barrett, M.R.C.S. Eng. (and grand-daughter of the late Hon. and Rev. Thos. Robt. Keppel), of 123, Holland Park-avenue, W., and Grimston, Norfolk.

DEATHS.

FLEMING.—At 3, Woodside-terrace, Glasgow, on Oct. 24th, Annie Cole Walls, wife of Wm. Jas. Fleming, M.D. Friends kindly accept this intimation.

HOOLE.—On Oct. 19th, Stephen Hoole, L.D.S. Eng., of 16, Old Burlington-street, W., in his 68th year.

LIVY.—On Oct. 24th, at the residence of his son-in-law, J. F. Knowles, of Belair, Birkdale, Southport, John Livy, M.D., F.R.M.S., and J.P. of Bolton, aged 73 years.

PALMER.—On Oct. 21st, at Lancaster House, Lincoln, Edwin Charles Palmer, M.A., M.B., B.C. Cantab., in his 35th year.

ROUTH.—On Oct. 21st, after a short illness, Alfred Curtis Routh, M.R.C.S., of St. Leonards-on-Sea.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

OFFENSIVE ADVERTISEMENTS.

A CORRESPONDENT has sent us one page from a paper headed *Illustrated Bits Advertisements*, which appears to be an advertisement page from the issue of *Illustrated Bits*, dated "week ending Nov. 4th, 1899." This one page contains, and contains little else but, the following: (*a*) an advertisement of a treatise on the cure of nervous exhaustion in men "showing the successful treatment of same"; (*b*) an advertisement of a new book addressed "to the married and those intending to marry of both sexes" and dealing with the "delicate questions of large families with a moral check"; (*c*) an advertisement of Towle's pills which "remove all obstructions"; (*d*) (*e*) and (*f*) advertisements of so-called surgical appliances, india-rubber preventives being clearly meant; (*g*) an advertisement of a book for ladies containing, it is stated, knowledge "of priceless value to every married lady"; (*h*) an advertisement of a specific against fatness; (*i*) an advertisement of an application for the immediate forcing of luxuriant whiskers; (*j*) an advertisement of tablets stated to "positively cure all nervous diseases, failing memory, impotency, sleeplessness, &c., caused by abuse or other excesses and indiscretions"; (*k*) an advertisement of a night guide round Paris (in this advertisement a resident Englishman offers his services as pimp. He does not so describe himself but that is what he either means or wishes the public to believe that he means); (*l*) an advertisement of "scarce books and rare photos" (the publisher offers at reduced prices such works as "Fanny Hill" and "Maria Monk," with illustrations. Probably these books have been sufficiently mutilated to acquit their publisher of any criminal charge of libel if such were brought against him, but the advertisement is worded in such a way as to suggest that the books are indecent. We cannot say for certain whether the bookseller designs to rob or to debauch his clients. Possibly a little bit of both); (*m*) an advertisement of "obesity pills for reducing superfluous fat;" (*n*) an advertisement of a depilatory fluid; (*o*) and (*p*) advertisements of receipts to stop blushing, of one of which it is said that it "improves general health"; (*q*) an advertisement of a preparation by a German doctor which rapidly produces moustaches; (*r*) an advertisement in which a gentleman offers to give away for four stamps "one of the most wonderful and curious books ever published" and to send his "free list," presumably of similar works; (*s*) an advertisement again of a depilatory application; (*t*) and (*u*) advertisements addressed to "weak men" (the unfortunate persons who should take these nostrums are guaranteed quick restoration from "nervous exhaustion," "loss of vital energy," and all the rest of it); (*v*) an advertisement of a "book for ladies," for which it is claimed that "no book is written which goes so thoroughly into matters relating to married women"; (*w*) an advertisement of a "valuable treatise on nervous exhaustion, loss of vigour, exhausted vitality, and all special diseases and weaknesses of man—their cause and means of cure by concentrated herbal remedies"; (*x*) an advertisement of an "illustrated guide, simple! safe! reliable! inexpensive!" addressed to married people; (*y*) an advertisement of an offer to give away "a rare and curious illustrated book" and a "gigantic catalogue of books, photos, and specialities"; and this unpalatable alphabet is closed by (*z*) an advertisement of Ottey's strong female pills.

The censorship which should be exercised by proprietors and editors of newspapers over their advertisement columns is a subject upon which much might be written. Whenever one of the public suffers through his gullibility in swallowing the promises of an advertiser he is apt to blame those responsible for the production of the newspaper where the hook was baited. He fails to see that proprietors and editors of newspapers cannot go behind the statements of their clients if only because life is short. When an advertisement is on the face of it a proper thing to put before the public it will go before the public. And if an advertisement which is fair in its seeming turns out to be foul in its reality, proprietors and editors of all properly conducted papers are very glad to be informed of the fact, so that they may close their advertisement columns to the "wrong un" for the future. Under these circumstances they smile at the suggestion that they have been in some way privy to the undoing of the victim of his own credulity. But when the advertiser has an ill record or when the viciousness of the proposals which he desires to make to the public are manifest there can be no doubt that proprietors and editors are wrong to allow him to advertise. They cannot escape a share of blame for any harm that may ensue.

Of the 26 advertisements to which we have drawn attention as all appearing on one page of the *Illustrated Bits Advertisements*, some, such as the depilatories and whisker-forcers, fall under the head of ordinary quack advertisements. We may regret that such advertisements should gain insertion, but the harm done by them is small. Few people believe in them and still fewer run any risk of physical harm by trying them. But what about advertisements of pills warranted to remove all obstructions? Surely in the light of recent events such advertisements should be stern y rejected by all self-respecting papers. And the same must be said o advertisements, which are forbidden to be affixed in public latrines, of indiarubber preventives. Again, treatises on nervous exhaustion and the prevention of over-population, always nasty as well as badly informed little pamphlets, should not be placed by proprietors and editors of newspapers within the reach of the general public. Every boy who is frightened into hypochondriasis and every girl who is lured into unchastity by reading these filthy lucubrations has a grievance against the paper whose lax advertisement columns have done them so much harm, and we cannot understand the frame of mind that thinks otherwise. Lastly, if our interpretation of the law is not wrong, those responsible for the production of *Illustrated Bits Advertisements* might be prosecuted for publishing invitations to buy dirty books and photographs. Of course the "scarce books," "curious books," "secret photos," and "microscopic revealers of the charms of nature" may not be dirty; and the "real American edition" of "awful disclosures in a nunnery" may be as morally instructive as the essays of Mrs. Chapone; but in this case purchasers expecting something else will be defrauded. They may not deserve sympathy, but they have a right to expect protection from robbery.

"BAGHDAD DATES."

To the Editors of THE LANCET.

SIRS,—Will you kindly inform me what disease is called "Baghdad dates"? I am, Sirs, yours faithfully,

Oct. 25th, 1899. INQUIRENS.

*** The disease indicated is furunculus orientalis, which is known colloquially also as Aleppo boil.—ED. L.

REGISTRY OFFICES FOR NURSES FOR THE SICK.

To the Editors of THE LANCET.

SIRS,—It must have struck many a busy practitioner that something would soon have to be done to prevent the constant and increasing interruptions forced on medical men by nurses calling on them in solicitation of cases.

Of course, it is impossible for all nurses, whether well qualified or otherwise, to identify themselves with, or become the inmates of, recognised nursing homes. I know several excellent nurses who are widows for whom a connexion with an ordinary home is an impossibility. Their only means of obtaining employment necessitates frequent calls on the medical men in their neighbourhood, which course is often as distasteful to them as to the practitioner. There are others, too, who for various reasons cannot associate themselves with the ordinary nursing institutions. For all these I would like to see established in every populous district a registry office for nurses for the sick, where such nurses desirous of obtaining engagements in maternity, surgical, and general cases could enter their names and obtain employment at a small cost.

It would be the duty of the person in charge of such office to require a recommendation in every case from one or more medical men, as well as particulars as to training and experience. Such an institution would not interfere or compete with existing homes, for its aim would be to deal only with this special class. Besides, it would tend to concentrate the body of such nurses and thus lead to the convenience of the medical man, and at the same time be a means of ascertaining the eligibility of nurses for special cases.

I have already suggested an office or centre for the south of Liverpool and I hope soon to see another centre established for the north end of the city. I should be glad to learn whether other large communities are not in need of some such movement.

I am, Sirs, yours faithfully,

Liverpool, Oct. 14th, 1899. G. WALTER STEEVES.

"WANTED HOMES FOR IMBECILE LADS."

IN reference to a note with this heading which appeared in THE LANCET of Oct. 21st a correspondent writes: "Lads of feeble intellect, if certifiable as imbecile, are received for training into the Earlswood Asylum (Secretary, Mr. Howard, 36, King William-street, E.C.) on election by subscribers if payment be small, but on payment alone at 60 guineas per annum and upwards. The National Association for Promotion of the Welfare of the Feeble-minded (Offices, 53, Victoria-street, S.W.) has training and industrial homes for boys of sub-normal intelligence but not certifiable as imbecile. Terms from 7*s.* to 10*s.* per week."

"CHLOROFORM ADMINISTRATION—A QUERY."

To the Editors of THE LANCET.

SIRS,—In my letter upon the administration of chloroform by means of the Krohne inhaler in THE LANCET of Sept. 30th, p. 922, col. 1, line 15 from bottom, I observe an *erratum* which I shall be glad to correct. The word "inspiration" there should have been *expiration*.

It is of primary importance that the chloroform vapour be injected into the vulcanite mixing-box at the ebb-tide of *each expiration*. Each on-coming inspiration then carries the chloroform deeply into the lungs with its first run and the tail of the inspiration sweeps out the mixing-box. It is the seizing of this phase-moment in each respiration which ensures that all the chloroform abstracted from the bottle shall go into the lungs, and that none of it shall be flung out directly into the atmosphere. Unless this postulate be ensured there is no basis for the admeasurement of the chloroform that has gone into the lungs; the data all become indeterminate, the anæsthesia degenerates into a rule-of-thumb procedure, and the patient's life must hang upon the perceptions, knowledge, and personal address of the administrator.

We all know men whose knowledge of "what is what" in the progression of an anæsthesia and whose perceptions, assiduity, alertness, and address are such that they give chloroform with success by the open method, *or by any other*. Nevertheless, to such men I submit that the Krohne inhaler gives a scientific certainty to the progression of the anæsthesia, that it ensures the safety of the patient, and even that it yields relief and personal comfort to the most skilled of such administrators; moreover, I submit that, as a matter of example to younger and less experienced administrators, it is their duty to adopt the scientific method and to discard the rule-of-thumb procedure. From 60 to 70 inquests have been reported in the newspapers during the first nine months of this year (1899) upon persons poisoned by chloroform. This spells a real annual mortality in this country of probably 200 lives. *Verbum sap.*

Since writing my letter referred to above I have anxiously tested the Krohne inhaler in various ways. By substituting for Krohne's graduated chloroform bottle a graduated gasometric tube of some 250 cubic centimetres, one can watch the procession of bubbles as they rise through the water and can read off the volume of air which is pumped in by various amplitudes of squeeze. I find that my estimate of the range of volumes—0·25 to four cubic inches—may be regarded as correct. But I discover an occasional faltering and uncertainty in the delivery of the air volume. This faltering is due to the second elastic ball—the one covered with silk net. This second ball is sometimes at one tension and sometimes at another. When the ball is slack a small squeeze is entirely expended in distending it. Sometimes an accidental pressure falling upon the second ball may force several cubic inches of saturated chloroform-air unintentionally into the mixing-box in addition to the quantity destined for the box by reason of the squeeze given by the hand to the bellows-ball. And I find that by the elimination of this second ball and a slight alteration of the outlet valve the instrument is materially improved. It is, at the same time, simplified and slightly cheapened.

This second ball in the Krohne inhaler is a survival. It has really descended from the ether spray apparatus designed and made by Krohne at Dr. Richardson's request in order to improve Arnott's mode of obtaining local anæsthesia by cold—vide papers by Dr. James Arnott in THE LANCET of July 22nd and Sept. 9th, 1848; also "Gelatial Anæsthesia," THE LANCET, Oct. 30th, 1858. Dr. Richardson, in place of applying the freezing mixtures of Dr. Arnott, substituted the evaporation of ether for the purpose of abstracting heat from the part to be frozen. In order to accomplish local freezing by ether, a stream of *the liquid* in fine spray (not its vapour) had to be projected continuously on to the part to be frozen. To get this continuity of action, Krohne designed the second net-covered elastic ball, and this served the same function as the air-chamber in the fire-engine pump and as the elastic coat in the animal artery. In this way Krohne made an intermittent squeezing of the bellows by the hand to produce a continuous jet of ether-spray. Now, those two balls were bodily transferred to the Krohne inhaler. But, if we must seize one particular phase-moment in each respiration at which to project the dose of saturated chloroform-air into the mixing-box, it is obvious that this continuity of action is a serious defect. What we want is a bellows with a touch as exquisite as the repeating action of the Erard grand piano. The bellows must yield the required measure of air—from a mere indentation with the point of the thumb to a complete manual compression—promptly, but with a dead cut-off at the instant of removing the pressure; and it must be susceptible, without substantial fatigue to a sensitive hand, of any amplitude of compression which the progress of the anæsthesia may require. By the elimination of this second ball and the perfecting of the valves of the bellows, I find that this inhaler becomes a perfect tool for diluting, measuring out, and delivering into the mixing-box, at any particular phase-moment of the respiration, any volume of chloroform-air which the administrator may determine. The instrument still fails to provide the administrator with sense or with fingers, and those extras will have to be appended to the bellows.

We may have a lovely Stradivarius and a perfect bow, yet one fiddler delights one's soul and another gives one the belly-ache. The difference lies in the sense and fingering of the player. Paganini ravished the musical world with one string on his fiddle. Just so some administrators can give chloroform safely and delightfully *anyhow*. Unless a man knows "what is what" as it comes before him in the progress of an anæsthesia, and unless also he has acquired the fingering wanted for the mechanical routine, no amount of book-work will make him a good chloroformist. In fact, the book-work men seem to me to be the most dangerous. To learn "what is what" in an anæsthesia one must work under, and *watch*, a master. Given the "extras" thus acquired by a man with genius enough to begin as a good follower of a good master, and the bellows of the Krohne inhaler when thus improved can be modulated so as to delight one's soul. Without these "extras" the Krohne inhaler, *or any other*, will only help an administrator to fool about and exhaust the patience of the waiting operator, or, if he "pushes the chloroform," to kill his patient.

The question that remains is—Are we to insist upon the use of a precise and scientific dosage of chloroform vapour—the dose being measured out for each inspiration and the aggregate amount used being automatically recorded upon a graduated bottle? Or, Are we to continue to administer it by rule-of-thumb?

I am, Sirs, yours faithfully,

Manchester-square, W., Oct. 3rd, 1899. JAMES EDMUNDS.

"A DISCREDITABLE CIRCULAR."

To the Editors of THE LANCET.

SIRS,—Lest it might appear that I was in any way responsible for a certain circular emanating from a firm of chemists who do business here, but which I altogether repudiat as I have some years ago disposed of my interest in pharmacy, I will ask you kindly to note that my future address will be "St. Lawrence, Howth, Ireland."

I am, Sirs, yours faithfully,

North Earl-street, Dublin, Oct. 21st, 1899. J. LEONARD.

*** We hope that Mr. Leonard will change his address with celerity. As long as he remains in 19, North Earl-street, Dublin, it is impossible that he should not share or even bear the whole of the responsibility for circulars issued from his registered address and bearing his name.—ED. L.

THE METHODS OF CHRISTIAN SCIENCE.

THE *Maryland Medical Journal* of Oct. 14th says that Mrs. Mary Baker G. Eddy, who has reached the most perfect stage of Christian Science cult, has been sued for a large sum and has transferred her property to her secretary in order to avoid losing it.

Ovidius.—If during his term of work at A our correspondent never came within two miles of B it would seem that to start practice at B would not damage his former principal, but that gentleman had better be asked to state frankly his views. Perhaps he went to B although his assistant did not. It is on all grounds advisable for a medical man not to lay himself open to a possible charge, however flimsy, of having tried to steal a march on a late employer and a professional brother.

Inquirer is right in believing that his health and strength are greatly in his favour, but he should also be able to command some capital. The only reliable way to obtain an assistancy with a view to partnership in South Africa—failing private information—is to go to the spot. There is no lack of medical men in the larger towns and more populous parts.

Enquirer (Derby).—(1) The British Medical Benevolent Fund (honorary secretary, Dr. S. West, 15, Wimpole-street, W.); (2) the Royal Medical Benevolent College (secretary, Mr. B. Lamb, 37, Soho-square); (3) the Society for the Relief of Widows and Orphans of Medical Men (secretary, Mr. J. B. Blackett, 11, Chandos-street, W.).

Usual Bond.—Giving our opinion on the case as it is stated by our correspondent we should say that there is an agreement (enforceable in the courts of equity) to execute the usual bond. This being so the courts would look upon the thing agreed to be done as done. But much depends on the exact circumstances.

X. Y. Z.—1. The strength of the cocaine solution used under such circumstances is generally 10 per cent. 2. The lay friend should be provided with more accurate tests if he wishes to avail himself of edible fungi other than the *agaricus campestris*.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Oct. 26th, 1899.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rain-fall.	Solar Radiation Vacuo.	Maximum Temp. Shade.	Min. Temp	Wet Bulb.	Dry Bulb	Remarks at 8.30 A.M.
Oct. 20	30·36	S.E.	...	77	60	41	42	42	Foggy
,, 21	30·36	E.	...	55	55	42	46	47	Foggy
,, 22	30·40	E.	...	52	50	44	47	47	Foggy
,, 23	30·25	S.W.	...	60	56	44	48	46	Foggy
,, 24	30·29	S.W.	...	75	60	46	49	49	Foggy
,, 25	30·34	N.E.	...	85	61	49	49	51	Cloudy
,, 26	29·97	S.W.	...	68	58	51	53	55	Overcast

During the week marked copies of the following newspapers have been received: *Bath Herald, Weston-super-Mare Gazette, Cambridgeshire Times, Dewsbury Reporter, Torquay Directory, Leeds Mercury, Glasgow Evening News, Liverpool Daily Post, New York Herald, Manchester Guardian, Sussex Daily News, Leicester Daily Post, Nottingham Daily Guardian, Times of India, Pioneer Mail, Lancashire Daily Post, Citizen, Scotsman, Architect, Builder, Western Morning News, Bristol Mercury, East Anglian Daily Times, Yorkshire Post, Hertfordshire Mercury, Bedfordshire Times, Mining Journal, Reading Mercury, Sanitary Record, Brighton Gazette, Bury Post, Burton Chronicle, South-Eastern Gazette, Church Family Newspaper, Newcastle Daily Chronicle, New York Evening Post, Chemist and Druggist, Science Siftings, Literary Digest, City Press, Surrey Advertiser, Local Government Chronicle, Local Government Journal, Durham Chronicle, Blackburn Daily Telegraph, Hereford Times, Bournemouth Guardian, Clifton Chronicle, Kentish Express, Gainsborough Leader, Birmingham Daily Post, York Daily Herald, &c.*

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (30th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M.).

TUESDAY (31st).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M. and 6 P.M.), Royal Ear (3 P.M.).

WEDNESDAY (1st).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), Cancer (2 P.M.).

THURSDAY (2nd).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (2 P.M.), St. Mark's (2 P.M.).

FRIDAY (3rd).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M., Ophthalmic 10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (2 P.M. and 6 P.M.).

SATURDAY (4th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 P.M.), Charing-cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), London Throat (2 P.M.).

At the Royal Rye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

WEDNESDAY (1st).—OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Dr. W. Duncan, and others. Papers:—Dr. Herman: Two Cases in which Life appeared to have been Saved by Anti-streptococcic Serum.—Dr. P. D. Turner: Notes on Tuberculosis of the Fallopian Tubes and Uterus in Cases of Phthisis.

THURSDAY (2nd).—HARVEIAN SOCIETY OF LONDON (Stafford Rooms, Titchborne-street, Edgware-road).—8.30 P.M. Dr. J. W. Washbourn: Cases illustrating the Value of Treatment with Antistreptococcic Serum.

FRIDAY (3rd).—WEST KENT MEDICO-CHIRURGICAL SOCIETY (Royal Kent Dispensary, Greenwich-road, S.E.).—8.45 P.M. Paper:—Dr. A. P. Luff: Modern Views as to the Causation and Treatment of Gout.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY (West London Hospital, Hammersmith, W.).—Papers:—Mr. J. G. Pardoe: Some Modern Methods in the Treatment of Chronic Urethritis.—Mr. S. Edwards: Urinary Obstruction with Cases illustrating some of its Causes. Mr. McAdam Eccles will show an Enema Apparatus from Central Africa.

LARYNGOLOGICAL SOCIETY OF LONDON (20, Hanover-square, W.).—5 P.M. Cases and Specimens will be shown by Dr. F. Poller, Dr. H. Mackenzie, Dr. StClair Thomson, Dr. D. Grant, Dr. W. Hill, Dr. H. Tilley, Dr. S. Spicer, and Mr. R. Lake.

SOCIETY OF ANÆSTHETISTS (20, Hanover-square, W.).—8.30 P.M. Dr. Savage: The Relationship between the Use of Anæsthetics and Insanity.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (30th).—CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL (Gray's Inn-road, W.C.).—5 P.M. Mr. L. Browne: The Recurrence of Enlarged Tonsils and Adenoids after Removal by Operation.

WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Dr. Beddard: Practical Demonstration of the Local Government Board Method of Vaccination.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. A. Whitfield: Clinical Demonstration of Skin Cases.

TUESDAY (31st).—NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-sq., W.C.).—3.30 P.M. Dr. Ferrier: Hemiplegia.

WEDNESDAY (1st).—ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—4.30 P.M. Dr. M. Dockrell: Lichen. (Post-graduate Course.)

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—4 P.M. Dr. Horton-Smith: Pneumothorax.

THURSDAY (2nd).—ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. W. A. Foxwell: On the Causation of Functional Heart Murmurs. (Bradshaw Lecture.)

THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. Mr. Kellock: Tubercular Disease of the Knee Joint.

CHARING-CROSS HOSPITAL.—4 P.M. Dr. S. Boyd: Demonstration of Surgical Cases. (Post-Graduate Course.)

WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Dr. Beddard: Demonstration of Various Antitoxin Injections.

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL (Gray's Inn-road, W.C.).—5 P.M. Dr. D. Grant: Differential Diagnosis of Nasal Discharges.

FRIDAY (3rd).—MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. H. Tilley: Demonstration of Selected Nose and Throat Cases.

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IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

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in the form of pills or powders, even when every ordinary precaution is taken, slowly undergoes conversion to oxide. 'TABLOID' BLAUD PILL does not contain preformed ferrous carbonate, but the materials which in the gastric juice produce ferrous carbonate. That it is the ideal form for the administration of the salt has been abundantly proved by clinical experiences.

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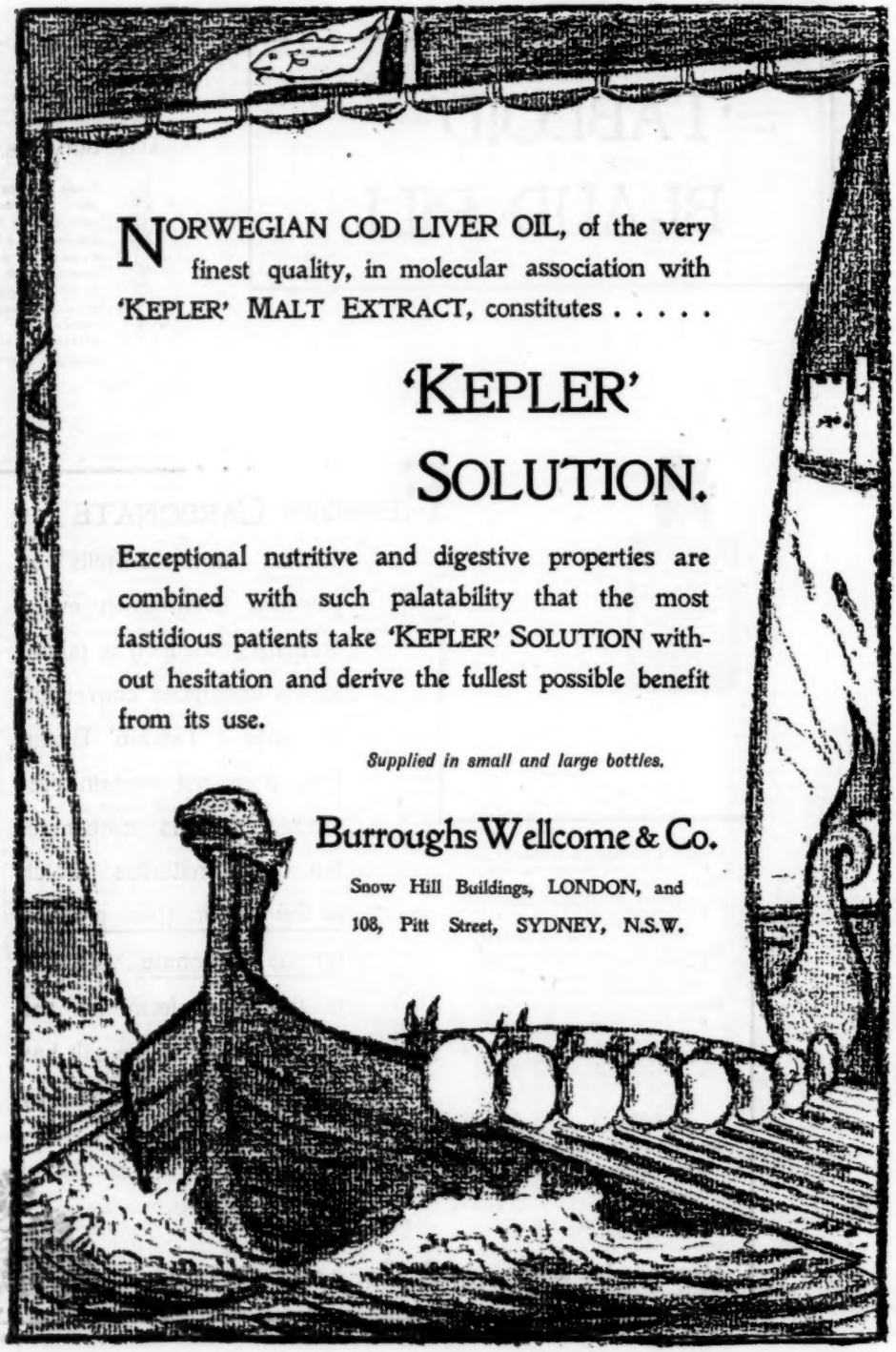
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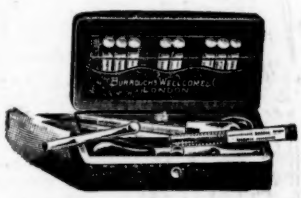

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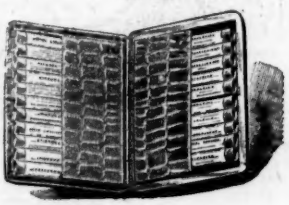

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